



Marginalia in cARTography

Sandra Sáenz-López Pérez

EXHIBITION at the
Chazen Museum of Art, Madison
February 28-May 18, 2014



David Woodward (1942-2004)

Dedicated to his memory and inspiration

This book is published on the occasion of *Marginalia in cARTography* at the Chazen Museum of Art, University of Wisconsin–Madison, February 28–May 18, 2014.

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In early 2011 Professor Matthew H. Edney, Osher Professor in the History of Cartography at the University of Southern Maine and Director of the History of Cartography Project here at the University of Wisconsin–Madison, approached me about collaborating with the Chazen on an exhibition of historical maps. Although I was very interested in bringing a discipline to our audiences that is normally outside of the museum’s circle of activities, there was no one at the Chazen with the expertise to curate such an exhibition. Could we identify an appropriate person? Again thanks to the efforts of Professor Edney, Dr. Sandra Sáenz-López Pérez, Postdoctoral Researcher at the Research Center for the Humanities and Social Sciences at the Spanish National Research Council was appointed David Woodward Memorial Fellow in the History of Cartography in 2012-2013. This generous fellowship, which was created to provide scholars with an opportunity to research and write on a subject related to the history of cartography using the resources and academic communities available through the Institute for Research in the Humanities and the History of Cartography Project at the University of Wisconsin–Madison made this fascinating project possible.

We are very grateful to Dr. Sáenz-López, who developed the scholarly theme for *Marginalia in cARTography* and identified and located the forty-four objects that comprise it, for her excellent scholarship. On behalf of the Chazen I also wish to thank the lenders without whose cooperation and trust this exhibition would not have been possible. They include Loyola University Museum of Art in Chicago, Lilly Library at Indiana University in Bloomington, John Carter Brown Library at Brown University,

the Boston Public Library, the Hill Museum & Manuscript Library at Saint John’s University in Collegeville, Minnesota, the Osher Map Library at the University of Southern Maine in Portland, the American Geographical Society Library at University of Wisconsin–Milwaukee, the Wisconsin Historical Society, the Cartography Lab and the Arthur H. Robinson Map Library in the Department of Geography at the University of Wisconsin–Madison, and the Department of Special Collections at the Memorial Library at the University of Wisconsin–Madison.

Support for this exhibition was provided by the Chazen Museum of Art Council and the Wisconsin Arts Board with funds from the State of Wisconsin and the National Endowment for the Arts, the UW–Madison Institute for Research in the Humanities and the History of Cartography Project. Dr. Sáenz-López’s research was made possible thanks to Arthur and Janet Holzheimer.

Finally, I must acknowledge the hard work and contributions by various museum staff members, for all such projects are the result of team effort. Foremost, Mary Ann Fitzgerald, our exhibitions coordinator was responsible for keeping everyone on time and on track. Communications specialist Jeff Weyer managed production of the catalog and all promotional materials. Ann Sinfield, the museum’s registrar negotiated loan agreements and arranged shipping and insurance. Jerl Richmond, Steve Johanowicz, and Kate Wanberg designed and installed the exhibition handsomely. Andrew Stevens, our curator of prints, drawings, and photographs, arranged for appropriate framing for each map.

Russell Panczenko

Director, Chazen Museum of Art

Marginalia in cARTography is a fitting tribute to David Woodward (1942–2004), Arthur H. Robinson Professor of Geography at the University of Wisconsin. The exhibition curator, Sandra Sáenz-López Pérez, was the David Woodward Memorial Fellow for 2012–2013.

Awarded annually since 2001, the fellowship has been hosted by the Institute for Research in the Humanities and sustained by generous gifts from Jan and Art Holzheimer; it has been named in Woodward's memory since 2005. Woodward was a remarkable scholar and teacher who made several major contributions to the study of maps as human documents. In particular, he founded *The History of Cartography* with Brian Harley (1932–1991). This multi-volume and award-winning series provides a definitive account of mapping in all societies, at all periods; it has already had a profound effect on our understanding of the nature of maps and their history. (www.geography.wisc.edu/histcart gives more information about the History and free online access to the volumes published to date.) The Holzheimers created the fellowships specifically to give scholars access to the university's remarkable intellectual resources in order to study topics of relevance to the *History*. Fellows have hailed from Europe, South America, and Australasia, as well as the U.S.A.

Moreover, the subject of *Marginalia in cARTography* was close to Woodward's heart. An artist, he became interested in the history of cartography as a way to understand why maps look the way they do. He pioneered the historical study of maps and/as/in art. His edited volume, *Art and Cartography* (1987), was quickly recognized as the subject's foundational work. It was thus appropriate for Robert Graebner—a Madison neurologist, clinical professor, and map aficionado—to suggest that an exhibition of maps at the Chazen Museum of Art would promote the *History* and the understanding of maps as cultural works. (Many doctors are fascinated with maps; in addition to their intellectual appeal, they seem to resonate with the spatio-

visual mindset fostered by many diagnostic tools.) I am grateful to Russell Panczenko and the Chazen staff for being so open to considering maps as art, and for their work in realizing the exhibition.

It was logical to seek a Woodward Fellow who could create such an exhibition. It was fortunate indeed that Dr. Sáenz-López applied. Trained as an art historian, she has extensively researched the iconography of medieval and renaissance maps. She conceived of an exhibition focusing on an academically marginalized subject: the decorative marginalia found on Western maps. But approached from an art historical perspective, marginalia are revealed as being crucial for shaping each map's meaning and defining its cultural significance. By bringing marginalia to the center of our attention, Dr. Sáenz-López demonstrates that there is much more to maps than spatial location and navigation. I am therefore most thankful to Sandra for creating the exhibition, for writing this catalog, and for perpetuating David Woodward's legacy so effectively.

Matthew H. Edney

Director, History of Cartography Project



Detail of plate 21, Jodocus Hondius's *America* (Amsterdam: Jodocus Hondius, [1619]), with the itinerary of Le Maire's voyage drawn in ink. Courtesy of the John Carter Brown Library at Brown University (Cabinet B619 1).

The term *marginalia* (*marginalium* in singular) was coined in the early nineteenth century to refer to scribbles and comments written in the margins of books and manuscripts, a practice that readers have undertaken since antiquity. The incunabula of Hartmann Schedel's *Liber chronicarum* (Nuremberg: Anton Koberger, 1493) at the University of Wisconsin–Madison shows in its edges notes written by an anonymous German reader who probably owned the book in the very late fifteenth or early sixteenth century (plate 7).

These written additions also appear on maps, updating information or correcting errors. The John Carter Brown Library copy of Jodocus Hondius's *America*, printed in Amsterdam in 1619, shows in the southern part of South America a pasted overlay with contemporary French manuscript additions, and the itinerary of Le Maire's voyage is added in ink (plate 21). This correction and handwritten text in South America reminds us that Jacob Le Maire and his chief navigator, Willem Schouten, were the first to sail around Cape Horn (*C. Hoorn*). Jacob's father, Isaac Le Maire, an Amsterdam merchant and director of the Dutch East India

Company, appointed his son to lead a private expedition to discover a new passage to the Dutch East Indies in 1615.

A more recent use of the term *marginalia* has been given to the images drawn in the borders of manuscripts, mostly those from the Middle Ages. Scholars such as Lilian M. C. Randall and Michael Camille use these marginal images as a key to fully decipher the meaning of illuminated medieval codices, deepening our knowledge of their authors and of the social and historical context in which these manuscripts were made.

The *marginalia* in these works are often drolleries of grotesque and comic appearance. They reached their full development in Gothic art around the second half of the thirteenth century. These motifs were originally sprinkled around the borders of the folio, sometimes connected to a decorated capital letter or placed at the end of a chapter (plate 1). Around the late fourteenth to early fifteenth centuries the edges of manuscript pages gained prominence, and marginal images were no longer painted in the bare vellum but

In this exhibition, the term “marginalia” is used to refer to the images at the margins of maps.

became part of a completely illuminated frame, where sometimes all the various types and elements of the marginal repertoire—flora, fauna, human figures, geometric and fantastic motifs—were reproduced in an obsessively microscopic scale (plate 2).

Maps are also part of the marginalia repertoire. In the *Etymologies* of Saint Isidore (ca. 560–636), a *summa* of universal knowledge in the Middle Ages, the chapter devoted to the description of the world (“De Orbe”) is usually illustrated with a map that sometimes is relegated to the margin; thus it is not inserted within the writing frame (plate 3).

In this exhibition, the term marginalia is used to refer to the images at the margins of maps. Throughout history, art and cartography have walked hand in hand: artistic motifs were used to represent geographical elements, cities, the different people who lived in the world, and so forth; and at the same time, there was no clear professional recognition, to the point that an artist could be responsible for both a map and for an illuminated manuscript or a painting in another artistic medium. The European discovery of Claudius Ptolemy’s *Geography* in the early fifteenth century and the impulse given to mathematics in cartography by the Flemish cartographer Gerard Mercator (1512–1594) prompted the development of Western cartography as a science and increased the interest of solving the problem of how to project the spherical earth on the flat surface of a map. Moreover, a deeper knowledge of the physical world increased the number of toponyms and amount of geographic detail. Thus the many blank spaces that before were filled with artistic motifs disappeared from maps, but not the

images themselves. They were still present but mostly relegated to the margins. The variety of maps in the exhibition show various forms of scientific projection, such as Ptolemy’s pseudo-conic first projection (plate 7) or his second “oval” one (plate 9); a cordiform (plate 20) or double-hemisphere maps (plates 17, 28, 29, 31, 32); or the Mercator projection, introduced in 1569 and still used in cartography today (plate 26). This scientism was compatible with artistic marginalia. In fact, as Matthew Edney argues, the double hemisphere projection not only favored the sense of the earth’s sphericity but also allowed a great deal of room in the margins for decorative elements.

As in medieval illuminated manuscripts, marginal images in cartography should be regarded not only as part of the map, but as elements that lead to a better understanding of the region mapped, of the cartographers and their collaborators, of their aesthetic sense, and of the world in which they were made. These artistic motifs have to be part of cartography studies for a full understanding of maps, because, as J. Brian Harley stated, “Both decorative and geographical images on a map are unified parts of a total image.” The exhibition *Marginalia in cARTography* challenges us to look at maps in a way that we are not used to: awarding their margins a central position.

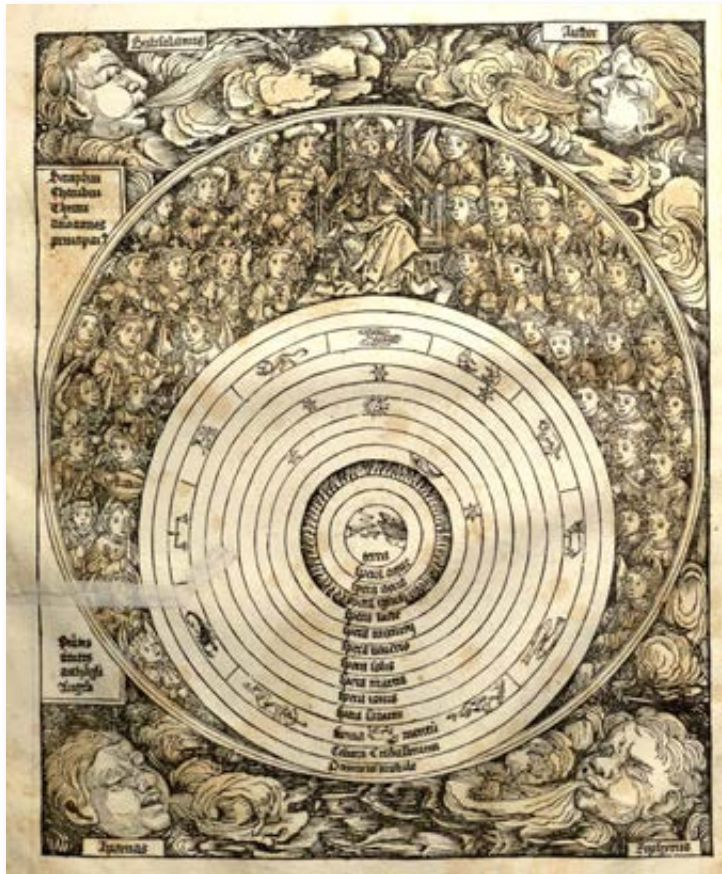


Fig. 1. The cosmos in Hartmann Schedel's *Liber Chronicarum* (Nuremberg: Anton Koberger, 1493). God's realm closes the medieval universe, with him enthroned and flanked by the elects and a choir of angels. Courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin–Madison (F S31 Cutter, f. 5v).

The medieval image of the universe was a combination of Christianized Aristotelian physics and Ptolemaic mathematical astronomy. It was conceived as spherical, finite, and geocentric. The earth at the center was surrounded by the other three classic elements—water, air, and fire—forming the sublunary world; around it, in homocentric spheres or heavens, were the planets (including the moon and the sun); and beyond lay the fixed stars and the *Primum Mobile*. This outer sphere in medieval Christian cosmology was identified with God (fig. 1), who, as the *Primordial Motor*, set in motion the *Primum Mobile*, and that

movement was propagated to the lower spheres, until it reached the moon. The universe moved through God's intelligence or spirit, or indirectly through his angels (as in Münster's *mappamundi*, plate 9). In the medieval mindset, therefore, God ruled the cosmos from the outermost perfect and unchangeable layer, which the German humanist Petrus Apianus named the "Coelum Empireum Habitaculum Dei et Omnium Electorum," that is, "The Empyrean Sky, Residence of God and of all the Elects," in his *Cosmographia*, first published in Landshut in 1524, which went through many editions and translations (plate 4).



Fig. 2. The Psalter map (ca. 1265). God embraces and blesses the world, and two basilisks, symbols of evil, are being crushed. The map is oriented to the east, with Terrestrial Paradise (with Adam and Eve) at the top, Jerusalem in the center, and the monstrous races at the southern edge of the world. © The British Library Board, ADD 28681 f. 9r.

Many medieval maps include the image of God embracing the world or the divine realm around it (fig. 2). The *mappamundi* by the Venetian Giovanni Leardo made around 1452 (plate 5) shows rings surrounding the map with information on how to determine the dates of Easter; the names of the months; the day, year, and minute when the sun enters each sign of the zodiac; the phases of the moon; the dates on which Sundays fall in various months and years; the length of respective days; and saints' days and festivals. And at the very margin of the map are the symbols of the four evangelists: St. Mark (as a lion), St. Luke (bull), St. Matthew (angel), and St. John (eagle).

Leardo's world is tripartite; that is, it is formed by the three continents known in the Middle Ages: Asia, Europe, and Africa. It is oriented to the east, with the Terrestrial Paradise at the top, and Jerusalem is in the center of the world (see these same characteristics in another medieval *mappamundi*, the Psalter map, fig. 2). It follows the zonal climatic theory, and therefore the northern and southern regions are described as uninhabitable because of the extreme cold and heat, respectively. Leardo's map is a clear example of a late medieval *mappamundi* in which the influence of the more realistic cartography of nautical charts is mixed with traditional geographic and theological ideas.

The most popular map in the Middle Ages was the so-called T-O map. Its name derives from its schematic tripartite shape, which was explained in the late fourteenth century

by Leonardo or Gregorio Dati in their attributed cosmographic poem *La Sfera* (plate 6):

*A 'T' inside an 'O' shows the design,
how the world was divided in three parts.*

The idea of a tripartite world is of ancient origin, and it gained popularity in the Middle Ages as it coincided with the biblical division of the world among Noah's sons after the universal deluge: Shem inherited Asia, Japheth Europe, and Ham Africa. The oldest examples of medieval *mappaemundi* are T-O maps, and the tripartition of the world was still present in the late Middle Ages, as is shown in the *mappamundi* of Hartmann Schedel's *Liber Chronicarum*, printed in Nuremberg in 1493 (plate 7). This map is an example of how late medieval cartography was influenced by the *Geography* of Ptolemy, known in Europe in the early fifteenth century, which marked the turn into modern cartography. The Ptolemaic influence is recognizable in the map's orientation to the north, its projection, and the enclosed Indian Ocean, where Taprobane Insula (Sri Lanka) stands out. However, in the margins, the three sons of Noah are still holding the world, and the map ignores the very recent discovery of America by Christopher Columbus (1492). The *marginalium* by the *mappamundi* written by an anonymous German reader in the very late fifteenth or early sixteenth century repeats in Latin Schedel's comment of the distribution of the world after the flood: *Post diluvium {Sem Japhet Cham} cum posteritate sua {Asiam Europam Affricam} inhabitant* (transcription by Dominique Stutzmann, IRHT/EPHE, Paris).

At the left of the *mappamundi* a vertical strip contains monstrous races that include a figure with six arms, a woman whose body is covered in hair, a figure with the lower part of a horse, and another with a crane head. Of ancient origin, monsters were part of the medieval world and an example of God's power of creation. And as the *Liber Chronicarum* shows, when mapped, monsters were relegated to the edges of the world (fig. 2).

Although the medieval image of the world changed, driven by the discoveries of new lands and the development of science, it still remained present in some maps centuries afterward. The influence of Schedel's image of the Christian cosmos (fig. 1) is apparent in the seventeenth century in Robert Vaughan's metaphysical map illustration for Elias Ashmole's alchemical text, titled *Theatrum chemicum Britannicum* (London: J. Grismond, 1652; plate 8). Under the image of God blessing the world and surrounded by the sphere of angels and elects, there is an inverted T-O orb, in which the three compartments are represented by the elements of earth, air, and water, and demons are cast down into the lower sphere of fire. This image is framed by a decorative border that emphasizes the connection with a medieval illuminated manuscript leaf.

“MISS AMERICA AND HER SISTERS” AT THE FOUR CORNERS OF THE MAP



Detail of plate 9, Sebastian Münster's *Typus Cosmographicus Universalis* from Johann Huttich and Simon Grynaeus's *Novus Orbis Regionum ac Insularum veteribus incognitarum* ... (Basel: Io. Hervagium, 1537; 1st ed. 1532). Image courtesy of The American Geographical Society Library (E141 .N933 1537).

The discovery of America inspired an artistic boom in the representation of the four continents. The New World, also known as the Fourth Part of the world, was named after the Italian explorer Amerigo Vespucci, as Martin Waldseemüller (ca. 1470–1520) explained in his *Cosmographiae Introductio* that accompanied his 1507 *mappamundi*:

I do not see what right anyone would have to object to calling this part after Americus, who discovered it and who is a man of intelligence, [and so to name it] Amerige, that is, the Land of Americus, or America: since both Europa and Asia got their names from women.

Paradoxically, despite its male name, America, as well as her three “elder” sisters, were mostly represented through female figures. That led Clare Le Corbeiller to title an article focused on the iconography of the four continents as “Miss America and her sisters,” which is now echoed here. In the words of Charmaine A. Nelson, “The

four continents—Africa, Asia, Europe, and America—went hand in hand with the idea of woman as nature, literalizing the symbolic representation of woman as territory and allowing for an aesthetic exploration of the female body as both beautiful and sublime.”

One of the earliest artistic representations of the four continents on a map appears in Sebastian Münster (1488–1552)’s *mappamundi* included in Johann Huttich and Simon Grynaeus’s *Novus Orbis Regionum ac Insularum veteribus incognitarum*, first printed in Basel in 1532 (plate 9). At the margins, the four corners are covered with woodcuts attributed to the German Renaissance artist Hans Holbein the Younger (ca. 1497–1543). Although they are not labeled, each corner is devoted to one continent: Africa (upper left) is represented by a terrifying elephant, big snakes, and two lip-plated Africans; Asia (upper right) by the Indian spice plants clove, musk, and pepper traded through Calicut, and some natives carrying bow and arrow and dressed with feathers (both the weapons and feathers were

Meanwhile, the earliest news on American cannibalism came from the travel accounts of Christopher Columbus and Amerigo Vespucci.

associated with the American Indian stereotype, and the fact that here they characterize Asiatic people derives from the confusion that existed between the two Indies); Europe (lower right) shows classical architecture and European figures, among which Ludovico di Varthema, a well-known sixteenth-century Italian traveler to Asia, is identified by name; and America (lower left) is associated with a cannibalism scene, where victims are being chopped up and dismembered human remains are being cooked over a fire and in a pot, and being dried hanging from the branches of a hut. The same hut appears in Brazil by the reference to the *Canibali* in Sebastian Münster's *New weldt oder Inseln* (Basel, ca. 1550), the earliest known separate map of the Americas, which appeared in his *Cosmographia* (Basel: n.p., 1550; plate 10).

Münster and Holbein approached the world with curiosity and an early ethnographical eye, though nuanced by a clear Eurocentrism. The sources used were varied and included other maps and travel books. For example, as Jean Michel Massing showed, a couple of lip-plated Africans appeared in Lorenz Fries's edition of Ptolemy's *Geography*, published in Strasbourg in 1522 by Johannes Grieninger (fig. 3), specifically in a woodcut related to the second regional map of Africa—another marginal image as it is not on the map itself but on the reverse folio.

Meanwhile, the earliest news on American cannibalism came from the travel accounts of Christopher Columbus and Amerigo Vespucci. In Vespucci's letter to Piero Soderini, written in Lisbon in 1504 and published in Florence between 1504 and 1506, he testified how one

of his sailors was killed, and later cooked and eaten. The German translation published by Johannes Grüniger in Strasbourg in 1509 incorporated a woodcut where in the background two natives are chopping up a body (fig. 4).

Sebastian Münster enriched his maps with artistic images, and these were in many cases relegated to the margins. In his edition of Ptolemy's *Geography*, first published by Henricum Petrum in Basel in 1540, the eighth regional map of Asia incorporated monstrous races at the edges (plate 11): a Sciapod using his big feet as an umbrella to shelter from the sun, small Pygmies fighting against the cranes, two Blemmya with their facial traits on the chest, and a Cynocephalus or dog-headed man. All of them were associated with India, as Münster also showed in his *Cosmographia* first published in Basel in 1544 (plate 11), and they were closely related to the medieval monstrous races that inhabited the world (plate 7 and fig. 2). The similitude between the scene of *Anthropophagi* chopping up a human victim in Münster's Ptolemaic map of India and in Münster-Holbein's 1532 *mappamundi* is explained again by the identification of both East and West Indies.

A work that played a major role in the definition of the images of the four continents in cartography was the *Theatrum Orbis Terrarum* by Abraham Ortelius (1527–1598), first published in Antwerp in 1570. This systematic and comprehensive collection of maps of uniform style has often been considered the first modern atlas (plate 13 and plate 34). The title page or frontispiece, an image marginal to the collection of maps that it introduces, stands out as one of the most interesting innovations in the history of cartography. Ortelius is thought to be the

Fig. 3. Lip-plated Africans in Lorenz Fries's edition of Ptolemy's *Geography* (Strasbourg: Johannes Grieneringer, 1522). Courtesy The Newberry Library, Chicago (VAULT Ayer 6 .P9 1522).

author of this arrangement, although the hand that materialized the idea has been identified with Franz Hogenberg, Philips Galle, and Maarten de Vos. In the preliminary pages a long poem by Adolf van Meetkerke, alderman of Bruges, titled *Frontispicio explicatio*, helps clarify the meaning of the image.

The frontispiece shows an architectural structure that houses female allegories of the four continents. The continents are not illustrated as a landscape where natives and local flora and fauna coexist, but rather the concepts and ideas that each evokes are represented in figures. Europe, on top, dominates the world. She appears seated under a palisade of vine leaves and clusters of grapes, symbols of the Christian Eucharist. Her head is covered with the imperial crown; in her right hand she holds a scepter and in her left, an orb topped with a cross, which alludes again to the triumph of Christianity. On both sides of the title stand Asia (left), richly adorned with jewels and holding a censer, and Africa (right), as a barely dressed black woman (with stereotypical physical characteristics of her race, including curly hair and a flat nose), with a crown of flames that alludes to the proximity of the sun. She holds a branch of balsam in her right hand, following Sebastian Münster's claim that balsam was produced only in Egypt. America is in the lower level, far from Europe to mark the distance between these two continents, and leaning against Asia's pedestal, which evokes the long-held identification with this continent. This figure represents the stereotype of a savage American: a long-haired, naked woman carrying a feather headdress, with an adornment on her forehead and



a string of bells under her right knee. She holds a club and a man's head, alluding to cannibalism; a bow and arrows are on the floor, and a hammock hangs in the back. Close to her feet, suggesting the short separation by the Strait of Magellan, lies Tierra del Fuego as a herm with a woman's bust, alluding to its still unknown real size, and decorated with the flames that Magellan saw at night and that gave name to this land. Ortelius reinvented the image of

the world, not only by his celebrated atlas, but also through the personification of the continents as they made their appearance on this title page. After the *Theatrum*, the artistic motif of the allegories of the four continents acquired great prominence as marginalia in cartography.

Ortelius used various textual and visual sources for the allegories of the continents. The iconography of America seems to derive from Hans Staden's *Warhaftige Historia ...*, first published in Marburg in 1557, but more specifically from Christoffel Plantijn's translation into Dutch, which appeared in Antwerp (the city where Ortelius lived and the *Theatrum* was published) in 1558 as *Warachtige historie ...* (plate 14). Staden was made prisoner of a Tupinambá tribe in Brazil, and after escaping and returning to Europe, he wrote an account of his captivity, describing how he witnessed that the natives killed and ate their enemies and even threatened him with being eaten. Staden seems to have had an important role in the design of the images in his Marburg edition, and they have been considered of great ethnographic interest. The club the Tupinambá used to hit the victim's head is very similar to the one America is holding in the *Theatrum*.

The continents being four were very suitable to fill in the blank spaces of the four corners of maps, and the subject became very popular as marginalia. Jan Baptista Vrients (1552–1612) used it in a splendid way. Vrients, a Flemish publisher in Antwerp who after the death of Ortelius in 1598 acquired the publication rights to the *Theatrum*, is responsible for the *Orbis Terrae Compendiosa Descriptio*, a double-hemisphere world map engraved by Arnoldus

and Henricus Florentinus van Langren in Antwerp (plate 15). It was part of Jan Huygen van Linschoten's *Itinerario* (Amsterdam: Cornelis Claesz, 1596) and, based on Petrus Plancius's 1594 world map, engraved by the Dutch master Jan van Doetecum and published by Cornelis Claesz. This map is also framed with the allegories of the continents (America is not a single figure but is represented by natives of Mexico, Peru, and the Strait of Magellan, or Magallanica), but Vrients's are artistically more sophisticated and refined than those in Petrus Plancius's map.

The images of Europe, Asia, Africa, and America in Vrients's world map derive from the Flemish designs of the four continents by Dirck Barendsz (1534–1592), engraved by Jan Sadeler in Cologne in 1581, and from those images by Maarten de Vos (1532–1603), which Adriaen Collaert not only engraved but also published in Antwerp around 1589. While Vrients followed the setting and tone of landscape from de Vos as well as the allegories of the continents riding their characteristic animals, the headdresses and some attributes, such as the cornucopia for Europe (symbol of abundance), derive from Barendsz.

Europe is sitting on the orb. She is crowned and carries the scepter; thus, as in Ortelius's *Theatrum*, her superiority over the other three continents is again emphasized. Asia sits on a dromedary and carries a censer; an elephant, rhinoceros, and what seems to be a giraffe are represented as Asiatic fauna. Africa rides a crocodile; her head is topped by a parasol and she holds balsam; in the background are elephants and lions and the Egyptian pyramids. The bellicose

Von der neüwē Welt

vmb welches willē wir dannzermal nit wenig Belustigter
gewesen. Von welcher leitt sitten (da wir sie haben gese-
hen/ hond wir die seitmal die Bequemlicheit sich begibt/
auch vnderweil herein wöllen ziehen.

Von irē leben vnd sitten



Fig. 4. Woodcut showing American cannibalism and other Indian customs in Amerigo Vespucci's German translation of his letter to Piero Soderini, published as *Disz büchlin saget wie die ...* by Johannes Grüniger in Strasbourg in 1509. Courtesy The Newberry Library, Chicago (VAULT Ayer 112 .V5 1509).

America, holding bow and axe, is seated on an armadillo. The savagery of this land is also shown in the cannibalism scene in the background. By echoing elements already included by Maarten de Vos, America in Vrients's world map is very far from the Arcadian America in Barendsz's design (figs. 5 and 6).

In 1593, Cesare Ripa published his *Iconologia overo Descrittione Dell'imagini Universali cavate dall'Antichità et da altri luoghi*, a book of emblems organized alphabetically that contributed to a great extent to fixing the iconography of the four continents. The first edition of the *Iconologia* was published without images, and the second, this time with 684 concepts and 151 woodcuts, appeared in Rome in 1603. Many editions and translations into different languages followed (plate 16), and the *Iconologia* became an extremely influential source in the depiction of allegorical figures in the seventeenth and eighteenth centuries and in various art forms. The scorpion, the lion, and the necklace in Ripa's Africa are repeated at the marginal iconography of the double-hemisphere world map published in Leiden around 1720 by Pieter van der Aa (1659–1733; plate 17).

This later work shows that two centuries after the four continents appeared in the borders of Münster-Holbein's world map (plate 9), the subject was still popular in cartography. Although it reached certain standardization, nuances and differences were introduced from one map to another. Europe is still associated with symbols of power, and in Van der Aa's world map she also leads in the arts, as by her feet there are a press, two pages with scribbled text, and a painter's

Fig. 5. Left: America by Dirck Barendsz, as engraved by Johannes Sadeler (Cologne, 1581). Amsterdam, Rijksmuseum (RP-P-OB-7440).

Fig. 6. Right: America by Maarten de Vos, as engraved by Adriaen Collaert (Antwerp, 1586–1591). Amsterdam, Rijksmuseum (RP-P-BI-6060).



palette with brushes. Moreover, the scene in the background shows that this modern allegory of Europe was compatible with the classical representation of the rape of Europa by Zeus in the form of a bull.

The evolution of the subject of the four continents in cartography is visible not only through the images at the corners of maps, but also through the title pages. One century after Abraham Ortelius's *Theatrum* came to light, Arnoldus Montanus (1625–1683) published his *De Nieuwe en Onbekende Weereld* (Amsterdam: Jacob Meurs, 1671), translated by John Ogilby (1600–1676) in his *America, Being the Latest and Most Accurate Description of the New World* (London: printed by the author, 1671). Illustrated with numerous engravings related to America, this work became the most popular book on the New World and a standard work for a long time. The frontispiece of Montanus (plate 18), also copied by Ogilby, shows the allegory of America being lifted in the middle of a motley crowd of Indians wearing feathers, and exotic animals—among which a llama stands out. Whereas in Ortelius's title page Europe was the most graceful continent, here the New World takes on that role. Europeans are still

present, but they are in the background, mesmerized by the bounty of gold that America is throwing. Later works remind us that Europe was still considered superior in the European mapping panorama, as in the cartouche of the map of Europe of the *Atlas portatilis* by Johann Christoph Weigel (Nuremberg?: Weigel, ca. 1740), where the three continents pay homage to Europe, who, on top of the world, specifically on the European area, rides the bull of Zeus, has a crown and carries a scepter ended in a cross, and is surrounded by a bright aura. The three other continents are holding a cloth with the title of the map and are represented through some of their standard attributes: dark skin for Africa, feathered skirt and hat for America, and turban for Asia (plate 19). In the context of this tradition, Montanus-Ogilby departed from the European artistic tradition and elevated the American continent, who this time was not riding an armadillo (or other exotic animal), but was standing up on a shell carried by two bearded Atlases, both quintessential symbols of Western classicism.



Fig. 7. “Cuzco, main city in the province of Perú” in the third volume of Giovanni Battista Ramusio’s *Delle Navigationi et viaggi* (Venice: De Giunti, 1565; 1st ed. 1556), p. 412. Within the city, the Inca sovereign Atahualpa is carried in a litter towards the temple. Image courtesy of the John Carter Brown Library at Brown University (1-size H554.R 184n).

In his first known map, published by Gerard de Jode in Antwerp in 1564, the Flemish cartographer Abraham Ortelius (1527–1598) included in the lower right corner the images of the two most important American cities of that time, Cuzco and Tenochtitlan (Mexico City; [plate 20](#)), as he explained in a cartouche above them:

Because this space was empty, and lifelike pictures of exotic things almost always please scholars, I have taken care of

incorporating here the images of these two cities, as they have come to us and that we can consider as genuine.

Those “genuine” Aztec and Inca cities that covered the emptiness of the border of this world map were very likely copied from Giovanni Battista Ramusio’s *Delle Navigationi et viaggi*, a collection of explorers’ firsthand accounts of their travels, and more specifically from the third volume, first published by De Giunti in Venice in 1556

(fig. 7). The images of both Tenochtitlan and Cuzco had a long life and were subjected to changes and additions. They were included in the first volume of the *Civitates Orbis Terrarum*, first published in Cologne in 1572 (fig. 8), edited by Georg Braun (1541–1622), and largely engraved by Franz Hogenberg (1535–1590). The *Civitates* was a major project intended to complement Ortelius's *Theatrum Orbis Terrarum* (plate 13) but focusing on cities. It came to an end with the publication of the sixth and final volume in 1617, having comprised 546 prospects, bird's-eye views, and map views of cities from all over the world. Braun added in the foreground, thus, in the margins of the maps, figures in local dress and scenes relevant to the cities' history, situation, commerce, and customs. As Braun stated in his preface to the first volume, the figures were introduced not only to depict local costume and manners, but also to deny his work to the Turks, who might use it against Christendom, as their religion forbade the representation of the human form.

In the map of Mexico City are three natives dressed in feathers and with bows and arrows. The central, most prominently clothed figure is probably a representation of Moctezuma II, killed during the Spanish conquest of the Aztec empire by Hernán Cortés. In Cuzco, Atahualpa, the last Inca sovereign before the Spanish conquest of his empire appears carried in a litter, both in the front and in the middle of the city, going to the temple.

The expansion of the mapmaking industry in the Netherlands in the second half of the sixteenth century inaugurated the golden age of decorative cartography, which was to last until the eighteenth century.

As Elizabeth A. Sutton pointed out, the transition of the cartographic center from Antwerp (where, for example, Ortelius issued his *Theatrum Orbis Terrarum*, plate 13, and Vrients his *Orbis Terrae Compendiosa Descriptio*, plate 15) to Amsterdam had an impact in the compositional focus of the artistic motifs, which moved from an allegorically oriented visual conception to a more documentary presentation. Previously the images on the maps signified deviance, incivility, and ultimately total difference from Europe, and in the end these figures functioned as indices of abstract cultural concepts in which all that was not European was exoticized and undervalued. Now the images on the maps gained a stronger ethnographical interest and served as documentary evidence of diverse cultures and peoples. This evolution resulted from a closer dependence on illustrated travel accounts, and from the fact that travelers would not only give accounts of the curious and exotic subjects, but would apply a more analytic perspective.

In the map of *America* engraved by Jodocus Hondius (1563–1612) in Amsterdam in 1606, and later reissued in 1619 by Hondius's widow (plate 21), a rectangular cartouche in the lower left margin illustrates "The method of preparing and consuming a drink among the Americans in Brazil, where, after women have chewed up certain roots, they spit them out again and then cook them in pots and offer them to men for drinking. And this drink is held by them to be especially delicious," as the Latin text above describes. For this image, Hondius resorted to the popular narrative of the captivity of Hans Staden as recorded by Theodor de Bry (1528–1598) in his *Grands*

The practice of decorating the margins of maps with images reached its peak in the Dutch map borders known as *cartes à figures*, or “map with figured borders.”

Voyages, specifically in the third part devoted to America titled *Dritte Buch Americae darinn Brasilia, durch Johann Staden ...*, published in German in Frankfurt in 1593 (plate 22).

The practice of decorating the margins of maps with images reached its peak in the Dutch map borders known as *cartes à figures*, or “map with figured borders.” Strips framed the map on three or four edges and included emblems, figures of people, busts of sovereigns, plans and views of cities, and the like, all relating to the geographical area mapped. Willem Janszoon Blaeu (1571–1638) is often credited with originating these delineated border decorations in the early seventeenth century (plate 27). Frederick de Wit (1630–1706)’s map of America, titled *Nova Totius Americae Description*, published in Amsterdam in 1660 (plate 23), includes a strip at the top with American cities—including the famed Tenochtitlan and Cuzco—and two on the sides with male and female types of American Indians from Virginia, Chile, Brazil, and Tierra del Fuego (or Magellanic). These figures depict distinct physiognomies, cultural accoutrements, and clothing, and it is interesting to emphasize that they have been separated and individualized in an attempt to classify them in a manner comparable to scientific taxonomy.

A similar approach is apparent in contemporary illustrated travel accounts. The Dutch explorer Pieter de Marees traveled to the Dutch possessions on the Coast of Guinea and wrote a book titled *Beschrijving en historisch verhaal van het Gouden Koninkrijk van Guinea* (Description and historical account of the Gold Kingdom of Guinea), published by Cornelis Claesz in

Amsterdam in 1602 and followed by various translations (plate 24). De Marees’s analytic interest is visible in the way people are differentiated according to race, costume, customs, and social class. In one depiction four women of Guinea are portrayed, and next to each one, a letter (from A to D) refers to their textual description. A is the *Melato*, of mixed Portuguese and African descent. She is fully clothed, and as de Marees commented, such women often became the wives of Portuguese men “because white women do not thrive much there.” B is described as a peasant’s wife on her way to market. She has scarification patterns on her face and arms, long bare breasts, and only a skirt covering her. C, the *Acatiassa* (young girl or virgin), is appropriately clothed to demarcate her virginal status but shows a breast to match the description as “short breasts, being in the prime of life.” D, known as *Hiro*, is a common woman breastfeeding her child. She also has scarification and is bare to the waist. De Marees describes how “the child sometimes cries for the Breast to suck, which the Mother throws at it over her shoulder, letting it hang to be sucked.” The engraver had Jan Huygen van Linschoten’s *Itinerario* (Amsterdam: Cornelis Claesz, 1596) as a visual model, and he understandably copied the Mozambiquan woman, despite that Mozambique and Guinea are separated by the entire African continent.

The fact that the marginal images of maps satisfied the curiosity of their viewers for “exotic things”—as Ortelius described in the first world map (plate 20)—is highlighted again on Châtelain’s map, which for that matter is titled *Carte tres curieuse de la Mer*

Fig 8. Mexico (left) and Cuzco (right) were the most important American cities when Georg Braun edited his first volume of the *Civitates Orbis Terrarum* (Cologne, 1573; 1st ed. 1572). The portraits of their distinguished respectively Aztec and Inca sovereigns are emphasized by locating them outside of the cities, in the foreground of the engravings, thus, in the margins of the maps. Courtesy The Newberry Library, Chicago (VAULT Ayer 135 .B8 1573).



du Sud, contenant des remarques nouvelles et tres utiles ... (A very curious map of the Southern Sea, containing new and very useful remarks ...; plate 25). The Southern Sea, as the Pacific Ocean was known, and America are the center of the world, and all the blank spaces around its edges (representing mostly water) are covered with many illustrations, echoing Dutch map borders. And these marginalia are indeed what bring the map its curious character.

This map originally appeared in 1719 in the sixth volume of the *Atlas Historique ou Nouvelle Introduction à l'histoire à la Chronologie et à la Géographie Ancienne et Moderne*, an encyclopedic work with an educational and moralistic purpose, intended as a “new introduction to the history, the chronology and the ancient and modern geography, represented in new maps.” A total of seven volumes of this historical atlas were issued over fifteen years, from 1705 through 1720, in Amsterdam. The *Atlas Historique*

was published anonymously (it is signed as “Mr. C***”), but it was apparently compiled by the Châtelain family. Although it is usually attributed to Henri Abraham Châtelain (1684–1743), Jan W. van Waning has recently argued that Zacharie Châtelain (d. 1723) is actually the compiler.

The world map shows more than thirty-five insets and vignettes related to the age of discovery and the New World, which have been described as an “iconographic feast of imagery for those trying to grasp the implications of European colonial intrusion into societies whose ‘otherness’ was their most defining feature.” Nine medallions at the top center portray important explorers—Columbus, Vespucci, Magellan, Schouten, Van Noort, L’Hermite, Drake, Dampier, and La Salle—while the tracks of their voyages are marked on the map. Geographic insets provide large-scale maps of significant locations, such as the Gibraltar Strait, the Rio de la Plata, Niagara Falls, and



Fig. 9. Detail of the industrious beavers building a dam with Niagara Falls in the background in Herman Moll's *A New and Exact Map of the Dominions of the King of Great Britain on ye Continent of America* (1715). Moll filled the blank space in the Atlantic Ocean with this image, causing the map to be known as the "Beaver Map." Wisconsin Historical Society Library-Archives (CAGE LC GZ 1712 M).

the Cape of Good Hope, as well as numerous city and town plans including Mexico City, Veracruz, and Havana. Other marginal vignettes range from narrative scenes, such as the arrival of Cortés in Mexico; the destruction of the Aztec idols; and the baptism of Magiscatzin before his being murdered, close to another human sacrifice in which the victim's heart is removed at the foot of an Aztec temple. Other images show the colonial economies in America based on codfish-processing factories in Greenland; hunting of beaver, moose, and bear; gold and silver mines (such as in Potosí); and sugar mills and cassava growing in South America. Natives (from all over

America, including Peru, Mexico, and Canada) as well as exotic plants (a pineapple, bananas, potatoes) and animals (llamas, a penguin, turtles, various birds, an opossum) are also illustrated.

Châtelain's world map was copied from the *Carte de la Mer du Sud ...* by the French cartographer Nicolas de Fer (1646–1720), printed in Paris in 1713, to which the former added the "very curious" hue in the title. De Fer included some motifs that he had previously used in other maps, such as that of the beavers building a dam with Niagara Falls in the background, designed and engraved by Nicolas Guérard, which first appeared in a map of 1698, and which

later the cartographer Herman Moll (ca. 1654–1732) popularized in *A New and Exact Map of the Dominions of the King of Great Britain on ye Continent of America*, printed in 1715 and reissued with minor revisions for decades afterward (fig. 9). These animals were thought to possess a great intelligence and were considered models of hard work and natural skill, and that is why they appear as a well-orchestrated group with each in charge of a task: felling the trees, cutting or carrying the branches, making mortar, and so forth, under the strict direction of the “commandant or architect” that gives instructions with its raised forepaw. There is even a beaver that lies incapacitated from overwork, and two others are approaching it to inspect. As J. Brian Harley commented, this scene “might merely suggest an interest in natural history, or that the fur trade was a source of wealth to some of the atlas patrons. Yet a closer look shows an absence of people and especially of the native Americans upon whom the fur trade depended. In the final analysis, unless the beavers are intended as symbol for the hard-working Europeans, it is just as likely that it was this negative aspect, the absence of people, which entered the reader’s consciousness ... Such images, associated with the representation of the territory on the map, and becoming part of the process of persuasion and mythmaking, rendered legitimate the holding of English colonies in America.”

If in Châtelain’s 1719 world map it was the lavishly marginal illustrations that made it “very curious,” more than a century later, artistic marginalia again defined another map, this time as

“embellished.” Colton’s *Illustrated & Embellished Steel Plate Map of the World on Mercator’s Projection* was compiled, drawn, and engraved by D. Griffing Johnson and published in New York in 1854 by J. H. Colton, the founder of an American mapmaking company that was an international leader between 1831 and 1890 (plate 26). Cartouches interlaced by filigree frame the map, and as with Dutch map borders, cities and peoples are illustrated all around. At the top center the landing of Columbus is flanked by London and New Orleans (left), and St. Petersburg and Paris (right). In the lower margin appear Constantinople, Naples, New York, Rome, and Canton. On the laterals there are different people: American Indian and Turkish (left), and Swiss, Circassian, Greek, and Mandarin (right).

Although stylistically these images are very far from those that framed sixteenth- and seventeenth-century maps, the same spirit that moved those cartographers to include marginalia in their maps seems to underlie the maps of the mid-nineteenth century. Not in vain, the subtitle of this world map, which reads *Compiled from the Latest & Most Authentic Sources Exhibiting the Recent Arctic and Antarctic Discoveries & Explorations*, seems to evoke Ortelius’s words in his 1564 world map, in which he included the images of Cuzco and Tenochtitlan “as they have come to us and that we can consider as genuine.”



Detail of plate 27, Willem Janszoon Blaeu's *Nova Totius Terrarum Orbis Geographica ac Hydrographica Tabula*, from his *Theatrum orbis terrarum, sive, Atlas Novus* (Amsterdam: Willem Janszoon Blaeu, 1635), with borders illustrating the four elements, seven planets, four seasons, and Seven Wonders of the Ancient World. Courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin–Madison, Gift of Dr. Seymour Schwartz (CA 15509 plate 5).

The Scientific Revolution and the Enlightenment brought a strong scientific component into maps, and marginalia in cartography were also influenced by experimentation and the advancement of human knowledge of the world. The ideal of spreading information to large numbers of people led to the expansion of printed material—including maps—that incorporated the latest scientific information. The demand for cartographic material increased, and mapmakers emphasized scientific (or pseudo-scientific) information, particularly in the borders, as a marketing tool to attract customers interested in wall maps for display as well as functional items. Moreover, the

important role cartography had in the formation of modern states, as a way of controlling the territory, as a strategic tool for war, and as a symbolic element to boast the power of a nation, is reflected in the titles, which many times announce that the map is the “newest and most accurate.”

Not only were the erudite and political interests of cartography compatible with the artistic beauty of illustrations, they also had a strong influence on the subjects chosen for marginalia. This combination was exemplified by one of the mapmaking and publishing businesses most inclined to the artistic ornament, that

founded by Willem Janszoon Blaeu (1571–1638) and later continued by his two sons, Joan and Cornelius. The *Nova Totius Terrarum Orbis Geographica ac Hydrographica Tabula*, originally published in Amsterdam in 1606 as a separate sheet map, remained in active circulation for over fifty years. It was copied by Pieter van de Keere in Amsterdam in 1608 and included in other Blaeu's atlases, such as the *Theatrum orbis terrarum, sive, Atlas Novus*, by Willem Janszoon and his son Joan (Amsterdam, 1635; plate 27).

The *Nova Totius Terrarum Orbis* is a map with figured borders. The strip on the left shows in four rectangles the elements (fire, air, water, and earth), and the one on the right the four seasons (spring, summer, autumn, and winter). Both these decorative motifs recur at the four corners of other contemporary maps (plates 28 and 31). The upper and lower strips strengthen the map's link with classical antiquity: at the top, seven planets are personified by the gods of the Greco-Roman pantheon (Moon, Mercury, Venus, Sol, Mars, Jupiter, and Saturn). Starting in the lower cartouche of the left strip (Earth) and moving upward to the last cartouche in the upper strip (Saturn), the vignettes reproduce the Aristotelian and Ptolemaic astronomical systems (fig. 1, plates 4, 28, and 29). The lower strip depicts the Seven Wonders of the Ancient World (from left to right): the Hanging Gardens of Babylon, the Colossus over the harbor at Rhodes, the Egyptian pyramids, the Mausoleum of Halicarnassus at Caria, the Temple of Artemis (or Diana) at Ephesus, the Statue of Zeus at Olympia, and the lighthouse of Alexandria. For the motifs in the borders of his map, Blaeu used Flemish engravings, such as

the Four Elements by Hendrik Goltzius (Haarlem, 1586). But of all these sources, the one that best connotes the idea of the map as a mirror of the world is that related to the Seven Wonders.

Although according to the title the map is “new” (*nova*), the iconography of these motifs rests firmly on classical ground, and it raises the question of what in its margins is actually new (or scientific, for that matter). Somewhat surprisingly, it is indeed the appeal to antiquity that brings novelty to this map. The images derive from the rebirth of classic subjects that took place in the sixteenth- and seventeenth-century European arts, driven by Humanism and the Italian Renaissance. As far as the Seven Wonders of the World, only in the Renaissance did the list we know today become fixed. The Dutch artist Maerten van Heemskerck (1498–1574) crystallized the ideas of his generation in a series of engravings based on literary sources (even back then, only one of the Seven Wonders—the Great Pyramid of Giza—remained). These prints, engraved by Philips Galle and published by Theodoor Galle in 1572, became the source used by Blaeu (fig. 10).

Another interesting example of the scientific approach of marginalia on a map is *A New and Accvrat Map of the World: Drawne according to ye truest Descriptions, latest Discoveries & best Observations yt have beene made by English or Strangers*, 1626, attributed to John Speed (1552–1629) and first published by George Humble in London in 1627 in an atlas known as *A Prospect of the Most Famous Parts of the World* (plate 28). The many images that surround the double-hemisphere map were copied

The four allegorical figures of the elements (water, earth, fire, and air) and the celestial hemispheres were copied from Hondius's world map.

from previous maps, not only British (especially the very fine world map by William Grent, London, 1625), but also “stranger,” as the title says, that is, foreign, such as the Dutch world map of 1617 by Jodocus Hondius.

The four medallion portraits of circumnavigators of the globe—Drake, Magellan, Cavendish, and Van Noort—similar astronomical drawings of solar and lunar eclipses, and the diagram of the universe derive from Grent's map. Despite the supposed attempt at accuracy (the title describes it as an *Accurat Map*), the image of the cosmos in this early-seventeenth-century map (as it was also evident in Breu's *Nova Totius Terrarum Orbis*, plate 27) is still rooted in the ancient tradition that persisted in the Middle Ages (fig. 1 and plate 4). It does not evoke the heliocentric model of the universe that places the sun, rather than the earth, at the center, as formulated by the astronomer Nicolaus Copernicus (1473–1543) in his *On the Revolutions of the Celestial Spheres*, first published in Nuremberg in 1543. Copernicus's ideas, strengthened and improved by later rational scientists, namely Galileo Galilei (1546–1642) and Johannes Kepler (1571–1630), had a profound effect on thinking about the universe and shape of the Earth after about 1650. Despite this scientific anachronism of Speed's world map, it is important to note that the outermost sphere that Petrus Apianus identified with “The Empyrean Sky, Residence of God and of all the Elects” (plate 4) here lacks a name; thus, God as the ruler of the cosmos is omitted from the diagram.

Grent's diagram with the solar divisions is replaced in Speed's world map by the image of an armillary sphere and “a figure to prove the spherical roundness of the sea,” as the accompany text reads. The four allegorical figures of the elements (water, earth, fire, and air) and the celestial hemispheres were copied from Hondius's world map.

A step forward in the mapping of the universe according to modern scientific discoveries appears in *A New and Correct Map of the World, Laid Down According to the Newest Discoveries, and From the Most Exact Observations* by Herman Moll (1654?–1732), inserted in his *The World Described, or A New and Correct Sett of Maps*, a collection of maps issued in London in 1715–1720 that saw numerous later editions (plate 29). The map, originally produced separately in 1707, is dedicated to King George II, as reads the legend in a cartouche, and the text on both sides includes interesting vitriolic attacks on Moll's competitors, particularly French cartographer Nicolas Sanson, “whose maps have been condemned and found to be notoriously false,” and a claim that Dutch maps are inaccurate and often illegal piracies. At the borders of the double-hemisphere map there are diagrams of the universe. In the upper left corner stands Ptolemy's universe, where the positions of the sun, the earth, and the moon are emphasized and the external sphere does not have a name (that external sphere that Petrus Apianus called “The Empyrean Sky, Residence of God and of all the Elects,” plate 4, does not have a name either in Speed's *A New and Accurat Map of the World*, plate 28). In the upper right corner Copernicus's sphere is shown with the



Fig. 10. The Pyramids of Giza in Egypt, with a crowned and bearded pharaoh looking up toward a bird of prey carrying a shoe in its beak. To the right, a group of workers building the pyramids prepare bricks and fire them in a large oven from which smoke rises. In the background appear a tall stepped pyramid and numerous obelisks. This print, engraved by Philips Galle and published by Theodoor Galle in 1572, after Maerten van Heemskerck, was the source for Blaeu's *Nova Totius Terrarum Orbis Geographica ac Hydrographica Tabula* (Amsterdam, 1635). Amsterdam, Rijksmuseum (RP-P-1904-3298).

sun in the center and the earth rotating around it. Moreover, it also depicts the moon around the earth, and the orbit of the comet seen in 1680 and 1681 that prompted Isaac Newton's theory of gravity. The lower margin of the map includes depictions of Mercury, Venus, Mars, Saturn, and Jupiter with its four moons discovered by Galileo Galilei in January 1610, and the first scientific map of the moon, according to Giovanni Domenico Cassini (ca. 1679), as well as the appearance of the sun from Athanasius Kircher's *Mundus Subterraneus* (Amsterdam, 1664). Kircher's sun is conceived as a body of wondrous fire, unequal in surface and composed of different substances—some fluids, some solid: a sea of fire wherein waves are in perpetual agitation (plate 30).

Copernicus's heliocentric system was depicted in a totally different—and very original—way in Joan Blaeu's *Nova et accuratissima totius terrarum orbis tabula*, inserted in the first volume of his *Atlas Maior, Sive Cosmographia* (Amsterdam, 1662) that was concluded in 1672 with a total of eleven volumes in Latin, followed by translations into French, Dutch, German, and Spanish (plate 31). In this map, not only did Joan Blaeu correct the geocentric system evoked in the *Nova Totius Terrarum Orbis* (plate 27), but the whole map itself, more than just the decorative borders, is a celebration of the Copernican universe.

In the center of the upper margin, the classic allegory of the sun stands out for its glare. The figures of planets, seated on the clouds, orbit around him drawing rainbow stelae, each one characterized by its classical attributes: Mercury with a winged petasos and carrying the caduceus; Venus with Cupid and holding a heart; Mars as a warrior; Jupiter topped with a crown and holding a scepter and a thunderbolt; and Saturn with a scythe, which alludes to the passage of time. The earth, represented through the double-hemisphere map, also orbits around the sun, as shown by the cloudy stele between Venus and Mars that seems to hold it. The moon, between both hemispheres, alludes to its rotation around the earth. The integration of the map in the border decoration emphasizes the close relation that exists between marginalia and cartography. Moreover, it reveals the close union of the heavens and the earth, or of astronomy (symbolized through a bearded sage on the left who holds an armillary sphere) and geography (the figure on the right that points at a globe and measures distances with the divider).

In the lower margin, the four seasons appear in chronological order in their distinct classic iconography (as in Blaeu's *Nova Totius Terrarum Orbis*, plate 27): Spring as a young woman who holds flowers; Summer as a nude woman with a sheaf of wheat; Autumn, a Bacchic figure holding a cluster of grapes and a cup; and Winter as a shivering old man with a hat and wrapped in a blanket, huddled by the fire.

The source for these images was probably the four seasons by Antonio Tempesta, published by Giovanni Orlandi in Rome in 1592. The inclusion of the four seasons links time to space (the map), and the temporal dimension of the earth's annual orbit around the sun and the movement of the planets come into play.

Marginalia in maps contributed to spread the knowledge of advances in astronomy and also in the understanding of natural phenomena. Johann Baptist Homann (1663–1724) stressed in his *Planiglobii terrestres cum utroque hemisphaerio caelestis generalis repraesentatio* (Nuremberg?, ca. 1716) the earth's physical and atmospheric forces (plate 32). In the upper margin, with the moon alluding to the night on the left and the sun to the day on the right, cherubic wind heads that in the Middle Ages and Renaissance appeared in symmetric order at the borders of maps (plates 5 and 7) are here responsible for chaotic winds. Snow or hail is falling on the left and lightning strikes on the right. In the lower margin other natural forces are displayed, including, on the left, the ebb and flow of the tides under the effect of the moon, an earthquake destroying a city, and the eruption of Mount Etna in front of a group of people raising their prayers, reminding us of human frailty; and on the right, a whirlpool that is sinking a boat, waterspouts, and a rainbow formed by the refraction of the light from the sun (on the upper corner) as it encounters the droplets of water from the rain. Along the bottom margin a text offers to the “friendly reader” (*Benevole Spectator*) a theoretical explanation of all this.

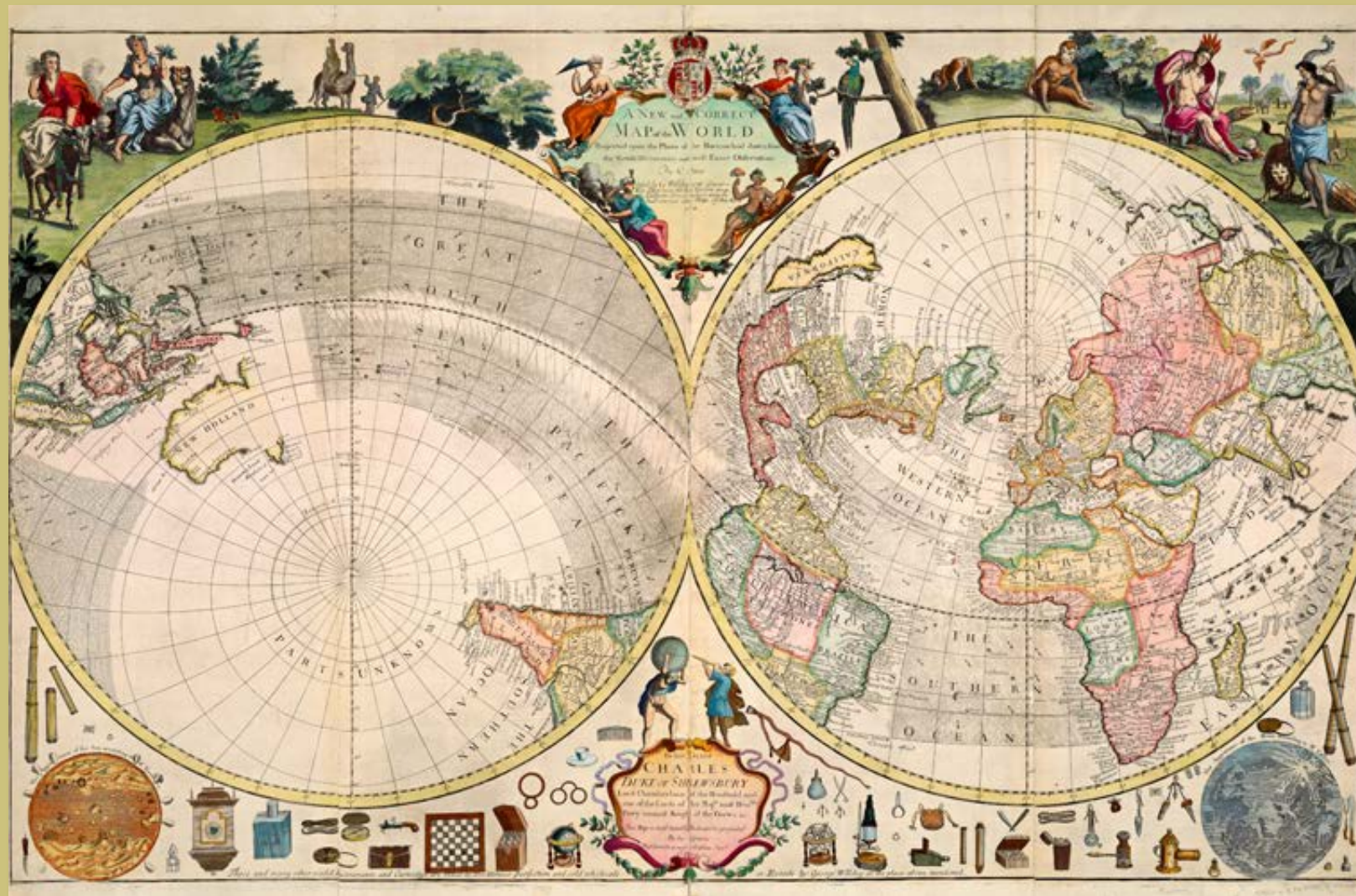


Fig. 11. Charles Price and George Willdey, *A New and Correct Map of the World* (1714). In close relation with all the scientific artifacts, the map copies Kircher's map of the sun and Cassini's of the moon that had previously appeared in Moll's *A New and Correct Map of the World* (1707; plate 29). The allegorical depictions of the four continents above were designed and engraved by H. Terrason, perhaps to expand the map's market by making it serve as a decorative wall map as well as a scientific resource. Courtesy of the Osher Map Library at the University of Southern Maine (OS-1714-5).

This map and many others included among their marginalia images of the celestial hemispheres, with attractive delineations of the constellations and zodiacal symbols (plates 15 and 28). But Reiner Ottens's star charts of the northern and southern skies included in his *Atlas Maior cum Generales Omnium Totius Orbis Regnorum ...* (Amsterdam: n.p., ca. 1740) were intended in origin, and still are, "as a feast for the eye." The constellations are elaborately presented as the classical figures of antiquity. Although these two maps did not have pretensions to scientific precision, once more the scientific interest was shifted to the margins, specifically to the corners, where illustrations depict the most important observatories where the advances in astronomy were relegated. The celestial map of the austral sky shows four European observatories (clockwise): Greenwich, the Round Tower in Copenhagen, Kassel, and Berlin (plate 33).

In sum, maps are a world of knowledge not only in their geographical essence, but as encyclopedias of human understanding of the world—sometimes updated, other times obsolete. And this scientific appearance of cartography was a key selling point. In fact, those lavish ornaments along the borders were a main attraction for sales, and the most obvious proof that the margins of maps were used to advertise and sell these commodities.

That is the case in the business operated by George Willdey (ca. 1676–1737), an optical instrument fabricator, mapmaker, and toy seller who formed a partnership with Charles Price

(ca. 1679–1733) in London in 1710 to sell maps, and after its dissolution three years later, Willdey kept the business. George Willdey has been considered "the most prolific advertiser for items of public science," and his ads eventually reached his maps (fig. 11). He had H. Terrason (fl. 1713–1717) design and engrave all the commodities sold in "The Great Toy Shop next the Dog Tavern in Ludgate Street," not far from St. Paul's cathedral in London, which can be read in the cartouche. These artifacts included complex and expensive instruments such as telescopes, a clock, a globe, an armillary sphere, compasses, a gun, a microscope, and a barometer, and lesser manufactures such as scissors, knives, buckles, monocles, spectacles, tweezers, and razors. The meaning of these images was also inscribed across the map: "These and many other usefull Instruments and Curiositys are made to the Utmost Perfection and Sold wholesale or Retaile by George Willdey." The map itself was one of them, both a commodity and a useful and curious instrument.



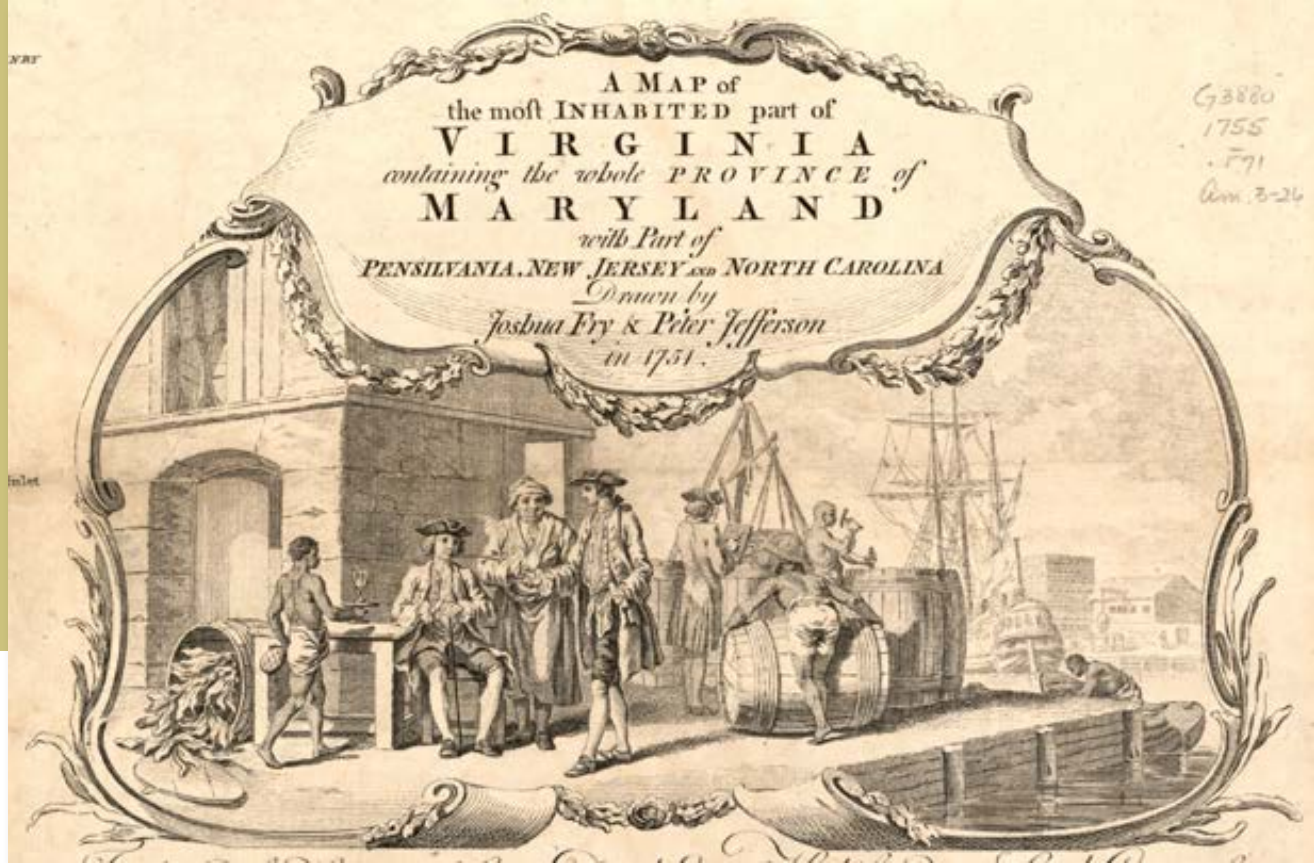
Detail of plate 34, *Americae sive novi orbis, nova descriptio*, from Abraham Ortelius's *Theatrum Orbis Terrarum* (Antwerp: Christoffel Plantijn, 1587; 1st ed. Coppenium Diesth, 1570). The title cartouches were copied from the pattern books of Italian Renaissance sculptors. Courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin–Madison, Gift of Dr. Seymour Schwartz (CA 15509 plate 2).

From the sixteenth through the nineteenth centuries the cartouche became one of the standard components of the ornamental vocabulary of artists and craftsmen throughout Europe, not only of cartographers. However, as Edward Lynam assured, “The cartouches of maps became a special branch of art.” Though a French word, *cartouche* derives from the Italian *cartoccio*, meaning a roll or twist of paper. In the early sixteenth century French and German cartographers introduced the first decorated titles on maps in the upper margin, but only as a simple text inscribed in a flying scroll—actually, in a *cartoccio*. Cartouches, as panels surrounded by an ornamental frame, are artistically much more elaborate, and they were an Italian creation. They made their appearance in cartography

in the sixteenth century, first to take in the title and soon other facts about the map, such as the scale (about 1580), and later the dedication, signature, date, imprint, and other information.

The first form of cartouche was based on “strapwork” design, imitating the ends of interwoven lengths of soft leather with edges curling forward all around the inscription. By 1550 the cartouche was a large rectangle with curved and curled pieces in relief that imitated carved wood. Flemish and Dutch cartography, especially after Abraham Ortelius's *Theatrum Orbis Terrarum* (Antwerp, 1570; plate 34), indiscriminately used these designs and motifs found in the pattern books of Italian Renaissance sculptors, wood-carvers, stonemasons, and plasterworkers.

Fig. 12. Joshua Fry and Peter Jefferson, *A detail of A Map of the Most Inhabited Part of Virginia Containing the Whole Province of Maryland* (London: T. Jefferys, 1755). The title of the map appears in a Rococo frame made of rocaille, complicated sets of C and S that resemble stylized shell-like, rocklike, and scroll motifs that generate asymmetrical shapes. This cartouche is an example of the message transmitted in maps of European possession and dominion in American colonies. Black native slaves appear serving and working for the European (white) tobacco industry in America and tobacco's exportation to Europe. Image courtesy of Library of Congress, Geography and Map Division (G3880 1755 .F72 Vault).



These frames, originally mostly geometrical, were soon decorated with figures, and classical sources became one of the most popular inspirations. Fauns, nymphs, and Neptunes (as in the dedication cartouche in plate 29), and putti—figures of chubby male children, usually nude and sometimes winged, that often appear in maps holding instruments for astronomy, surveying, and map drawing—were included, combined with other nonfigurative elements such as masks, sphinxes, and wreaths of flowers and fruits.

Allegories of the country mapped were also a recurrent motif. In the *Nova Totius Americae Description* by Frederick de Wit (Amsterdam, 1660; plate 23), the New World is symbolized by the design of Maarten de Vos, as engraved by Adriaen Collaert (ca. 1589), of a

bellicose, bare-breasted female figure, holding bow and axe and seated on an armadillo (fig. 6). The use of motifs related to America became very common within cartouche decoration, even when the map was not of the New World but a *mappamundi*, as in Blaeu's *Nova Totius Terrarum Orbis Geographica ac Hydrographica Tabula* (Amsterdam, 1635; plate 27). Covering the gap of the unknown territory of North America, a cartouche that discusses the discovery of the New World by Christopher Columbus and its naming after Amerigo Vespucci is flanked by two hybrid mannerist figures, half human and half vegetal. The one on the left is crowned by a feather, is dressed in a feathered skirt, and holds, again, a bow in her left hand, and with her right she shows a ring, alluding to American metallurgical and mineral wealth.

In the 1640s the idealized inhabitants of the country were depicted in groups with their appropriate implements and domestic animals, and the development of Baroque art introduced a great variety of naturalistic scenes, usually related to the region mapped, its people, their customs, or the presence of the Europeans in those territories. The map of the *Partie occidentale du Canada ou de la Nouvelle France* by the Italian cartographer Vincenzo Maria Coronelli, published in Paris by Jean Baptiste Nolin in 1688 (plate 35), shows a group of natives (distinguished by their nude torsos), probably *les Nations des Illinois, de Tracy, les Iroquois, et plusieurs autres peuples* mentioned in the subtitle. They are throwing arrows at cattle that have been cornered in a lagoon or river by bonfires lit on the shore. At the top of a waterfall, two Europeans (dressed with hats, and firing weapons) are shooting at some other animals. Despite the apparent cooperation in this hunting scene between American Indians and Europeans (probably from France, as the map presents the French exploration of the Great Lakes and Upper Mississippi), it is important to emphasize that the dress and armament speak of the social superiority and higher technical development of the latter and stress the wild status of the natives. This savage America is even more evident in the smaller cartouche that frames the map scale, where a figure whose arms have been amputated and his body pierced by a stake is being cooked over a fire, and in the background, in a pot, other supposedly human remains are being stewed. The cannibalistic reference to America that appeared as a marginal motif in cartography soon after the discovery of the New World (plate 9) is still reiterated here.

The persistence of characteristics attributed to a country or region through the title cartouches is particularly evident in Willem Janszoon Blaeu's *Aethiopia Superior vel Interior vulgo Abissinorum sive Presbiteri Joannis Imperium*, a map that appeared first in the *Novus Atlas, das ist Abbildung vnd Beschreibung von allen Ländern des Erdreichs, gantz vernewt vnd verbessert* (Amsterdam, 1635), later in the *Atlas Maior, Sive Cosmographia* (Amsterdam, 1662–1672), and was reissued in other collection of maps, such as this general atlas (Amsterdam, 1696; plate 36). This map is based on the *Presbiteri Johannis, Sive, Abissinorum Imperii Descriptio* by Abraham Ortelius, included in his Latin edition of the *Theatrum Orbis Terrarum* (Antwerp, 1573), but as is common in Blaeu's production, it has been enriched with images, especially in the cartouches. According to the title, the map represents the territory under the control of Prester John, a mythical sovereign of medieval origin. His legend arose in the mid-twelfth century when a letter started to circulate in Europe presenting him as a powerful Christian king and, it was hoped, an ally to fight against the Muslim conquest of the Holy Land and to protect Europe from the Mongols. Prester John was first located in India, but in the fourteenth century his kingdom was transferred to East Africa, specifically to Ethiopia, a territory identified as part of India. In the fifteenth and sixteenth centuries, Portuguese explorers of the African continent were still searching for Prester John. The Portuguese knowledge of and interaction with the Christian Copts in Ethiopia entrenched his mythical kingdom on maps of East Africa well into the eighteenth century.

The decoration of the cartouche in this map is related not to Prester John but to African ethnography. It is surrounded by black figures, both female and male, and some nude children. Two of them, seated on the pediment from which a cloth with the title hangs, carry parasols as a protection from the scorching African sun—the same parasol that topped the head of Africa in Jan Baptista Vrients's *Orbis Terrae Compendiosa Descriptio* (plate 15), and covered her body in Petrus Plancius's *Orbis Terrarum Typus De Integro Multis In Locis Emendatus*. Moreover, the classical putto which in many maps plays with a divider in the scale cartouche has been transformed in Blaeu's map into another black child.

It is interesting to note how the style of the decoration of cartouches evolved parallel to artistic development, and how their subjects varied depending on the nature of the map. Another regional map of Africa, the *Carte de l'Egypte Ancienne et Moderne* by Gilles Robert de Vaugondy and engraved by Elisabeth Haussard, shows a very different image of Africa, this time related to her ancient history echoed in the title (plate 37). The map was inserted in the *Atlas Universel*, first published in Paris in 1757 by de Vaugondy and his son, Didier Robert de Vaugondy, along with Antoine Boudet, and was later reissued by Charles François Delamarche. Far from copying a myth, the title cartouche in this map approaches the ruins of Pharaonic Egypt. The title text is carved on a broken stone slab lying on a palm tree and a sphinx. A tumbled obelisk and a classical colonnade with a broken entablature reinforce the decadent aspect of these makeshift archaeological remains. The background features

some very angular pyramids, which recall the Renaissance designs by Maerten van Heemskerck, engraved by Philips Galle and published by Theodoor Galle in 1572 (and copied by Willem Janszoon Blaeu in his *Nova Totius Terrarum Orbis Geographica ac Hydrographica Tabula* [Amsterdam, 1635; plate 27]). This and other details, such as the bare breast of the sphinx and the necklace around her neck, as well as some hieroglyphs in the pedestal—namely the naturalistic palm tree and the crocodile (which recalls the animal ridden by the allegory of this continent; plate 15)—keep this representation from being a true copy of the ancient Egypt art history. However, the map creators should be considered prescient for foreseeing the popularity of Egyptology that was to come after Napoleon's campaign in Egypt in the very late eighteenth century.

During the eighteenth and nineteenth centuries, apart from the interest in ancient ruins, especially those in Rome after the influence of the designs of authors such as Giovanni Battista Piranesi (1720–1778), another subject that stood out in cartouche decoration was the depiction of conflicts among countries. One of the most spectacular images in this regard is the *Theatre de la Guerre en Espagne et en Portugal* by Johannes Covens and Cornelis Mortier, inserted in the *Nieuwe atlas ...* (Amsterdam: Covens & Mortier, ca. 1740), that illustrates the title cartouche with an image of the War of the Spanish Succession (1701–1714), fought between two alliances of European powers, including a divided Spain, over the ascent to the Spanish throne after the death of Charles II of Spain (plate 38). The title of the map is written on a big rock, crowned

Fig. 13. Niagara Falls in Jean Louis Hennepin's *A new discovery of a vast country in America* (London: M. Bentley, et al., 1698), ill. at p. 29. Wisconsin Historical Society Library-Archives (F352 H75).



These marginal images are a representation of “ownership and control, as well as of information and accurate (often inaccurate) knowledge about the continent.”

by the heroic image of the Archduke Charles (a young Charles III) on a horse, after his landing near Barcelona in 1705. It is striking, however, to note that the map is dedicated to Philip V. This edition was published in the late 1730s after a previous map by Pierre Mortier, dedicated to Charles III, published around 1710, and as Peter Barber explains, “In the middle of the eighteenth century it did not make commercial sense for a publisher to alter radically the plate of an old map that was still selling reasonably well in response to changing political circumstances.” Thus the map was reissued with minor differences and “without even a change of the face or (Habsburg) symbolism, a generation after it had been first published by Pieter Mortier and long after Barcelona had fallen to the Bourbon forces and the map had been rededicated to Philip V.”

The idea of the cartouche being a “visual register in which a map’s cultural meaning is suggested”—to put it in the words of G.N.G. Clarke—is emphasized according to this scholar in eighteenth-century British maps of America, and especially in Jefferys’s (fig. 12) and Faden’s atlases. These marginal images are a representation of “ownership and control, as well as of information and accurate (often inaccurate) knowledge about the continent”; thus they have to be understood as “the pictorial equivalent (a comparative image) of the way the land is portrayed in the map ‘proper.’” The cartouches mirror the map. As “icons of possession ... cartouches give both ballast and direction (visual, narrative, symbolic) to this political frame.”

William Faden’s map of *The United States of North America: with the British and Spanish Territories, According to the Treaty,*

of 1784 is one of the first English maps to display the boundaries of the newly recognized country after the signing of the Treaty of Peace in 1783 and its ratification in 1784 that ended the American War of Independence (1775–1783; plate 39). It was published originally with the title *The British Colonies in North America* in 1777, thus during the American Revolutionary War, and it was regularly revised and updated as new information became available. Therefore, Faden’s sequence of these maps illustrates the political development of this country. Of the various editions, this exemplar has been identified as a fourth state in which the words “of 1784” are added in the title, and it is dated 1785. Other than these changes the cartouche is the same as in the first edition of 1777. The elements that form it have been interpreted by Clarke as a celebration of British colonization and dominion in North America. Two very different groups are portrayed in a scene that alludes to the wealthy European industries built in the New World with American products and labor: the white British merchants, who appear comfortable and at ease, control the proceedings, while the native (black) workers are in positions of subservience: carrying a basket on the shoulder or leaning over a barrel being prepared for export. The clear difference in skin color of these two groups indicates the dependence of the economy on African slaves in America, and that slavery was still in practice despite the declarations of rights and freedom.

Moreover, as Clarke assures, “The framing device in which the title appears is also significant.” Covering the side of a hill, it

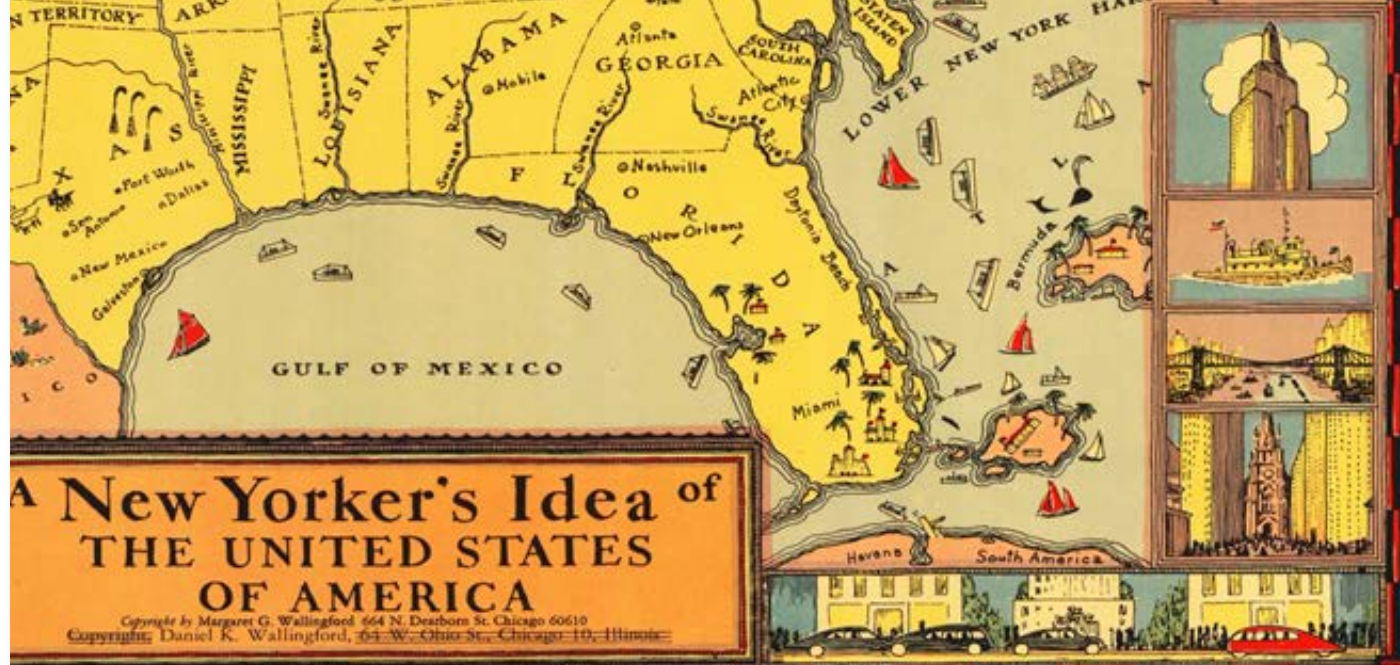
proclaims the British presence in the land and its dominion over the American landscape. In this cartouche, a net, an element that speaks of work, blocks the view of a waterfall. Perhaps this detail can be interpreted again as European control and possession of the vast and exuberant American landscape, and thus of the territory.

A very different American landscape is that framing the title of *A map of the United States of North America: drawn from a number of critical researches* by Aaron Arrowsmith (London, 1802; plate 40). As the Romantic Movement gathered strength, images of natural features and products of the country were introduced in cartouches. Again, a waterfall, in this case Niagara Falls, represents the United States of North America. The illustration accompanies a text by Andrew Ellicott (1789) that starts, “Among the many natural curiosities which this country affords, the Cataract of Niagara is infinitely the greatest.” After Jean Louis Hennepin (1626–ca. 1705) recorded the first published description and image of Niagara Falls in his *Nouvelle découverte d’un très grand pays situé dans l’Amérique* (Utrecht, 1697), translated into English one year later, these waterfalls became a landmark of the country and one of the wonders of the modern world (fig. 13). The design was incorporated into Nicolas de Fer’s map (1698) and popularized by Herman Moll’s “Beaver Map” (fig. 9). However, the picture of Niagara Falls in this map of the United States is very different from those previous versions. It lacks the European presence of Hennepin’s and the total absence of any human form as in Fer’s and Moll’s maps.

Instead, the map seems to evoke that American piece of paradise before Columbus’s arrival. The only humans present in the middle of that exuberant nature are two natives, who are nearly naked. One is seated on the ground and the other stands, holding an axe and pointing at the waterfall.

Such a different approach to previous American motifs in cartouches could be understood from the point of view of the American Independence. As G.N.G. Clarke affirmed, “The cartouche declares the newly won nationhood and establishes an alternative symbolism ... to displace former British possession.... The land, like the map, is advertised as ‘free.’” Moreover, the emptiness of this vast American landscape as represented in the Niagara Falls cartouche could be related to the vast blank spaces in the map, especially in the northwest below the fiftieth parallel, which could be read as a way of encouraging colonization.

Echoing Jacques Derrida, Stephanie Pratt concluded his analysis of images of America at the borders of maps affirming that “the cartouche constitutes the map,” as they “make up the supplement and are ‘the outside of the inside’, the exteriorizing of what is really internal and whose absence from that interior is a ‘default’.” Therefore if it is commonly said that an image is worth a thousand words, in the case of cartography we could assure that the cartouche is worth (at least) the map.



Detail of plate 43, *A New Yorker's Idea of the United States of America* by Daniel K. Wallingford (Boston: Daniel K. Wallingford [reprint from ca. 1964]). Courtesy of the Arthur H. Robinson Map Library (G3701 A6 193- W3).

From our part of the world, our “center,” the margins have always been distant places—different, full of mystery. In the blank spaces on maps there is room for imagination, and that is where men have relegated all that, whether worshiped or feared, is unknown, all that is not familiar. If in the Middle Ages the holy city of Jerusalem was centered and Terrestrial Paradise and monstrous races were located in the margins of the earth (fig. 2), now we place ourselves in the middle of the world in our mind’s map, and put our others—different people, cultures, religions, economies, and politics—surrounding it. Those cartographic edges have always provoked mixed reactions, from an absolute deep fascination to complete revulsion or fear. But regardless of any of these two, men have always wanted to reach those edges—to know, learn, possess, control those other worlds.

Traveling to the edges has been a topic of interest from ancient times, and cartography has enabled us to achieve that goal. The image of the map allows us—as it has always done—to travel, with our minds, all around the world. But the idea of actually taking a map to navigate on a physical journey—which is one of the first functions we now assign to cartography—is a much more recent use. Not until the late nineteenth century did the social use of maps begin to increase, as travelers used them as guides to the point of their destinations. It was then that maps became a daily instrument in our lives.

The popularity of maps gained a boost in the early twentieth century from expansion of the automobile industry and road making, which favored both commercial and touristic journeys, and road maps became one of the most common types of cartography.

Today, in the era of GPS and satellite navigation systems, when those foldable maps that not long ago would accompany us on all our trips are losing their functionality and starting to be seen as museum or archive artifacts, it is surprising to learn that not long ago most of our roads did not exist or were almost impassable. Late in the nineteenth century many places were still isolated, merely a dot on a map. That favored their inhabitants' idea of being in the center of the world.

In the United States road and highway construction was encouraged by the highway associations that flourished in the 1910s and 1920s and pursued the "Good Roads Everywhere" movement. The National Highway Association map (plate 41) issued by the National Highways Association, the Automobile Club of America, and the Society of American Military Engineers in 1928 shows the whole United States covered in thick red lines, a project to connect the entire country, from San Diego (California) to Houlton (Maine), from Blaine (Washington) to Miami (Florida)—thus reaching to all the edges—because, as a text in the map reads, "National Highways ... stimulate the entire political, social and recreational activities of our Nation." This map displays Senator Coleman du Pont's "principles of road building," showing not only a tentative suggestion for road construction, but also, in the margins of the map, depicting cross sections of how roads should be built, with between one and four lanes, "as traffic and military needs of the nation require." This relation between highway construction and national security was especially noticeable in the interwar period.

Close attention to the highway cross sections reveals a detailed representation of an American street, which includes the one- or two-way directions, the fast and slow lanes, areas for trees and people (sidewalks) and the distance from the road to the houses and even churches (in the lower right corner). As a result, as another text promises, "The Nation will eventually have for the use of all the people the greatest highway system."

If road maps expose not only the social but also the political and military interest of reaching for the edges, the economic value is highlighted in the very curious map titled "The Man of Commerce" (plate 42). There are only two known copies of this work, made by A. F. McKay and engraved by Rand McNally in 1889. An anatomical diagram of the human body lies on the map of North America to show, as a text explains, "the resemblance between the arteries of commerce as represented by railroads, and the arterial system of man; also, the resemblance between the great vital organs and the commercial system of the great lakes." The map's metaphor makes "West Superior, Wisconsin, the head of Lake Superior ... the heart of this wonderful man, the center of this great railroad and commercial system." The reason the map emphasizes this region of the United States is because it was published by the Land & River Improvement Company of Superior, Wisconsin, as a way of convincing other companies that their fair hamlet deserved to be a national center of manufacturing and shipping. Some explanatory notes affirm that "New York [is] the umbilicus through which this man of commerce was developed," and "as brain power



Fig. 14. Saul Steinberg, *View of the World from 9th Avenue* cover of *The New Yorker*, March 29, 1976 © The Saul Steinberg Foundation /Artists Rights Society (ARS), New York. Cover reprinted with permission of *The New Yorker* magazine. All rights reserved. Steinberg's illustration shows that beyond the Hudson River the United States is a deserted land waiting to be conquered and developed.

moves man, so the precious metals are the basic of commercial movement, and they are found located in the head" that overlays the states of Washington and Oregon. The explanatory notes conclude: "It is an interesting fact that in no other portion of the known world can any such analogy be found between the natural and artificial channels of commerce and circulatory and digestive apparatus of man." And in fact, although the human body as a cartographic metaphor is certainly common in medieval and modern cartography, this work may be the earliest reflection of this metaphor to North America.

Despite the prominence given to this part of the world, a close look at the map reveals that this "man of commerce" encompasses more than the United States, or even the North American territory; it stretches and spreads all over the world (as the commercial cartographic project intended), stepping on the British Islands, Spain, and Africa and virtually touching New Guinea, Japan, and the Kamchatka Peninsula. Therefore, the United States, through West Superior, was reaching for the edges of the world.

Although we have traveled all over our country and to the edges of the earth, and we have mapped the entire surface of the world and covered it with terrestrial, maritime, and aerial routes that let us reach any point, in our mind's map we still locate ourselves in the center, surrounded by a marginal other, moved perhaps by the need to focus on our familiar microcosm, on our own identity, against the immensity of the world, or of the worlds.

Designs all over the map contribute to that humoristic view of the United States, although the artistic interest is mostly relegated to the margins.

A New Yorker's Idea of the United States of America is one of the most popular maps to reflect such an idea. Created in the 1930s by Daniel K. Wallingford, it was first published by Columbia University Press for the 1936 Times Book Fair; a second edition was printed for the 1937 Times Book Fair, and the map was later redone in color in a larger format on glossy paper for the 1939 New York World's Fair, with the inclusion in Queens of the grounds where the fair was celebrated. The map remained in print for years, and it was again used for the New York World's Fair in 1964, with the addition of the grounds where that event took place (plate 43). In a combination of humor, satire, and provincialism, the map illustrates the United States from the perspective of a chauvinistic New Yorker: a highly intentional distortion emphasizes a massive New York and Brooklyn area, and other parts, such as Florida or Hollywood, while most of the rest of the country is irrelevant, and many of the place names are incorrect.

Designs all over the map contribute to that humoristic view of the United States, although the artistic interest is mostly relegated to the margins. Marginalia emphasizes New York, with representations of the Empire State Building or the Brooklyn Bridge, and compares, on the east side of the map, a busy and modern New York street, where cars drive both ways, with, to the west, a typical scene of the conquest of the West, where horse carts run toward the sunset and cross the desert.

This map predates the well-known illustration *A View of the World from Ninth Avenue* by Saul Steinberg, which served as the cover of the March 29, 1976, edition of the *New Yorker* and had a similar satirical viewpoint (fig. 14).

Cartographic responses to the New Yorker's map of the United States did not take long to make their appearance. Wallingford also published *A Bostonian's Idea of the United States of America*, similar in concept, in the 1950s, and from "The 'Green' State" of Wisconsin *A true and undistorted map of the U.S.A. made in Wisconsin* by Les Williams was released in Pine River (Wisconsin) in 1952 by A. C. Kimball (plate 44). A yellow color, representative of the butter, cheese, and beer for which Wisconsin is known, covers most of the center of the whole country, and a multitude of small drawings caricaturize the image of that state and of the rest of the United States.

PLATES



PLATE 1. Leaf from a French 14th-century Bible with marginalia. It includes foliage, a bird, and hybrid figures fighting or playing an instrument. Loyola University Museum of Art, Chicago, Martin D'Arcy, S.J. Collection, Gift of Mrs. John S. Millar, 1972-21.



PLATE 2. Manuscript missal bordered with vegetal scrolls inhabited by naturalistic birds, fantastic dragons, hybrid animals, and little naked men shooting arrows or clinging to the branches. Although the historiated initial “S” showing Pentecost is in the style of the Master of the Cypresses who worked in Seville in the 1430s, the marginalia place the volume into the midcentury or third quarter. Courtesy Lilly Library, Indiana University, Bloomington, Indiana (Ms. Ricketts 75, f. cliv verso).

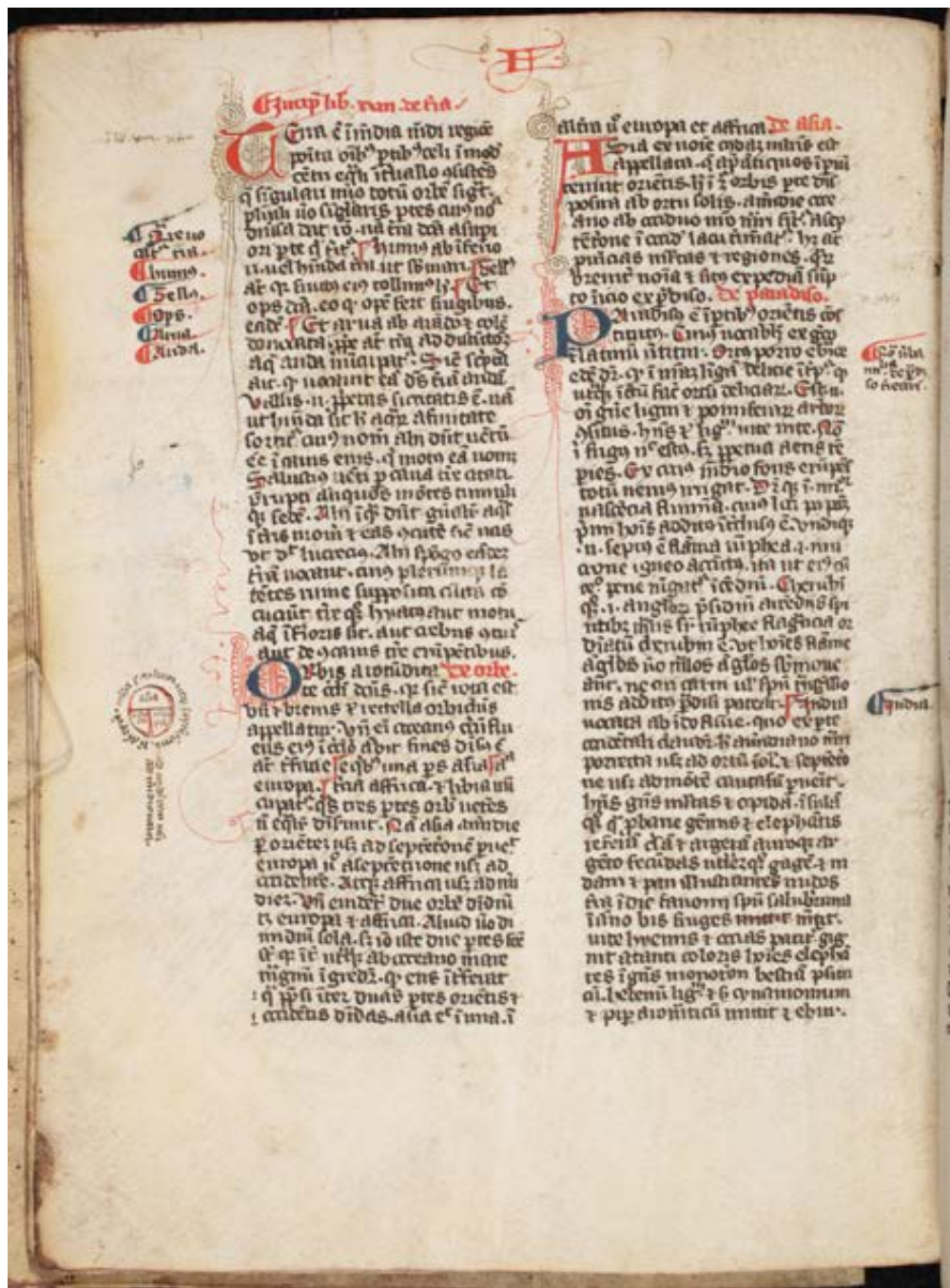


PLATE 3. A marginal T-O map appears in a thirteenth-century manuscript of the *Etymologies* of Isidore of Seville. An obscure text around it seems to describe the movement of “Kasepium” (perhaps the constellation Cassiopeia), through the east and north, to the west and south. Thanks to Elisa Ruiz (UCM) and Ignasi Baiges Jardí (UB) for their help reading the Latin text. By Permission of the Hill Museum & Manuscript Library, Saint John’s University (Collegeville, Minn.), Steiner Collection (Ms. 54, f. 20v).



PLATE 4. Image of the universe in the edition of Petrus Apianus's *Cosmographia* annotated by Gemma Frisius (Cologne: Hæredes Arnoldi Birckmanni, 1574; 1st ed. by Petrus Apianus: Landshut, 1524; with Gemma Frisius's annotations: Antwerp, 1539). Courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin–Madison (724792 noncurrent, p. 3).



PLATE 5. *Mappamundi* by Giovanni Leardo (ca. 1452). This example is not only the largest known map by the Venetian cartographer but is also notable for the information compiled in its margins. Image courtesy of The American Geographical Society Library (050 A-1452).



PLATE 6. Fifteenth-century Italian manuscript of *La Sfera* by Leonardo or Gregorio Dati, with cartographical depictions including a T-O map. Courtesy of the Trustees of the Boston Public Library/Rare Books (Ms. f. Med. 125).



PLATE 8. Robert Vaughan's metaphysical map in Elias Ashmole's *Theatrum chemicum Britannicum* ... (London: J. Grismond for Nath, 1652).
 Courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin–Madison (Thordarson T 136).



PLATE 9. Sebastian Münster's *Typus Cosmographicus Universalis* from Johann Huttich and Simon Grynaus's *Novus Orbis Regionum ac Insularum veteribus incognitarum* ... (Basel: Io. Hervagium, 1537; 1st ed. 1532). Depictions of the four continents attributed to Hans Holbein the Younger appear at the four corners of the map. Image courtesy of The American Geographical Society Library (E141 .N933 1537).



PLATE 10. Sebastian Münster's *New welt oder Inseln* (Basel, ca. 1550), the earliest known separate map of the Americas, illustrates a scene of cannibalism in Brazil. Courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin–Madison, Gift of Seymour Schwartz (CA 15509 plate 1).

• T A B V L A A S I A E V I I I . •

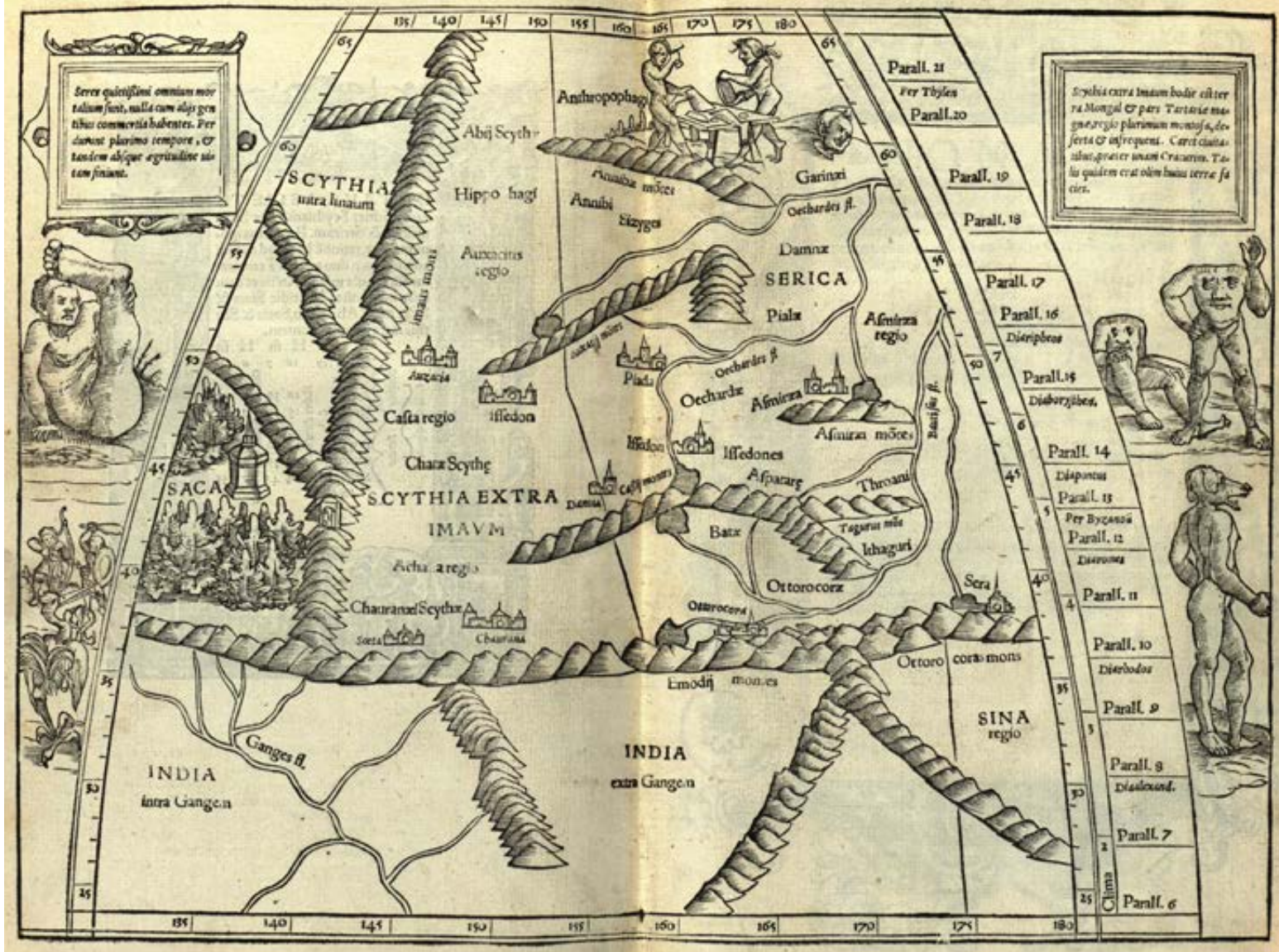


PLATE 11. The eighth map of Asia in Sebastian Münster's edition of Ptolemy's *Geography* (Basel: Henricum Petrum, 1542; 1st ed. 1540) shows monstrous races relegated to the margin, and a scene of cannibalism appears in India. Image courtesy of The American Geographical Society Library (G87 .P85x 1542).



PLATE 12. Monstrous races in India in Sebastian Münster's *Cosmographia* (Basel: Henricum Petrum, 1561; 1st ed. 1544). Courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin–Madison, Gift of Mrs. Adolph C. Bolz (1027330 noncurrent, f. mcccvcvii).



PLATE 13. Frontispiece of Abraham Ortelius's *Theatrum Orbis Terrarum* (Antwerp: Coppenium Diesth, 1570), with allegories of the four continents. Wisconsin Historical Society Library-Archives (M GZ 1570 O).

^{new}
EEN VVARACH-
TICH CORT BERICHT
VANDEN HANDEL ENDE ZE-
den der Tuppin Imbas, diens gheuangen ick
gheweest ben, woonende onder haer in dat
lantschap America, dwelck leyt inden xxiiij.
graet op der Zuydtsijden der linien equi-
noctiael, ende stoot aen een riuere
Rio di Ienero ghenaeempt.



*Gheprint Thant Verpen inden gulden Eenhoren,
by Christoffel Plantijn.*

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PLATE 14. Frontispiece of the Dutch translation of Hans Staden's *Warachtige Historia ...* (Antwerp: Christoffel Plantijn, 1558) depicting Brazilian Tupinambá Indians. Courtesy of the John Carter Brown Library at Brown University (J558 .S776w).



PLATE 15. Jan Baptist Vrients's *Orbis terrae compendiosa descriptio* (Antwerp: Jan Baptist Vrients [1590]), framed with the allegories of the four continents. Courtesy of The American Geographical Society Library (050 B-[1590]).



PLATE 16. Allegories of Africa and America in Cesare Ripa's *Nova iconologia* (Padua: Pietro Paolo Tozzi, 1618; 1st ed. of Ripa's *Iconologia* with images 1603). Courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin–Madison (715362 noncurrent, pp. 352–353).



PLATE 17. *Mappe-Monde Suivant les Nouvelles Observations de Messrs. de l'Academie Royale des Sciences, etc. Augmentees de Nouveau* by Pieter van der Aa (Leiden, ca. 1720), with allegories of the four continents at the four corners. Wisconsin Historical Society Library-Archives (H GX 11 1720 A).



PLATE 18. Frontispiece of Arnoldus Montanus's *De nieuwe en onbekende wereld ...* (Amsterdam: Jacob Meurs, 1671), where the allegory of America stands out. Courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin–Madison (934822 noncurrent).



PLATE 19. Map of Europe from the *Atlas portatilis* by Johann Christoph Weigel (Nuremberg?: Weigel, ca. 1740). The cartouche illustrates this continent on top of the world through the classical iconography of the rape of Europa by Zeus. Wisconsin Historical Society Library-Archives (S GZ A872).



PLATE 20. *Nova totius terrarum orbis iuxta neo tericorum traditiones descriptio* (Antwerp: Gerard de Jode, 1564), first known map by Abraham Ortelius, where he included at the empty space of the margin images of Cuzco and Tenochtitlan. Facsimile made by the UW–Madison Cartography Lab from Schilder, Günter. *Monumenta cartographica Neerlandica*. Alphen aan den Rijn: “Canaletto”, 1986–, vol. 2, folios 1.1–1.8.



PLATE 21. Jodocus Hondius's *America* (Amsterdam: Jodocus Hondius, [1619]), with contemporary French manuscript additions and the itinerary of Le Maire's voyage drawn in ink. A cartouche at the margin shows "the method of preparing and consuming a drink among the Americans in Brazil" taken from Theodor de Bry's illustrations. Courtesy of the John Carter Brown Library at Brown University (Cabinet B619 1).

Das dritte Theil. 75
XIII. Capittel.
Wie sie ißte Getreid machen daran sie sich truncken
trinken, vnd wie sie sich halten mit dem
trinken.



Als Weibsoeld machet die Getreide sie nemen die Wurzel Mandio-
ka vnd sieden grosse Döppen voll / wech es gesotten ist / nemen sie es auß
den Döppen / gießens in einander Döppen oder Gefäß / lassens ein we-
nig kalt werden / denn setzen sich die jungen Wägde darbey / vnd kochen es mit dem
Mande vnd das gekochte thun sie in ein sonderlich Gefäß. Wenn die gesottenen
Wurzeln alle gekochet seyn / thun sie das gekochte wider in das Döppen / vnd
gießen es widerumb voll Wassers / vermengens mit den gekochten Wurzeln / vnd

PLATE 22. German translation of Hans Staden's *Warhaftige Historia* ... published by Theodor de Bry as *Dritte Buch Americae darinn Brasilia, durch Johann Staden* ... (Frankfurt, 1624; 1st ed. 1593). This work was very likely the source of the marginal decoration in Hondius's map of *America*. Courtesy of the John Carter Brown Library at Brown University (08922).



PLATE 23. Frederick de Wit's *Nova Totius Americae Descriptio* (Amsterdam: F. de Wit, [1666]; 1st. ed. 1660), including border images of American cities and types of American Indians. Courtesy of The American Geographical Society Library (052 A-[1666]).



PLATE 24. Pieter de Marees's *Description et recit historial du riche Royaume d'or de Guinea* (Amsterdam: Cornille Claesson, [1605]), with depictions of four women of Guinea. Courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin–Madison (CA 1742).



PLATE 25. Chatelain's *Carte tres curieuse de la Mer du Sud* ... from volume 6 of *Atlas Historique* (Amsterdam: François L'Honoré & Compagnie, 1719), showing the Pacific Ocean and America at the center of the world, surrounded by more than thirty-five insets and vignettes related to the age of discovery and the New World. Courtesy of The American Geographical Society Library (052 B-1719).



PLATE 26. D. Griffing Johnson's *Colton's Illustrated & Embellished Steel Plate Map of the World ...* (New York: J. H. Colton, 1854), with cartouches interlaced by filigree framing the map that illustrate cities and peoples of the world. Image courtesy of the Library of Congress, Geography and Map Division.



PLATE 27. Willem Janszoon Blaeu's *Nova Totius Terrarum Orbis Geographica ac Hydrographica Tabula*, from his *Theatrum orbis terrarum, sive, Atlas Novus* (Amsterdam: Willem Janszoon Blaeu, 1635), with borders illustrating the four elements, seven planets, four seasons, and Seven Wonders of the Ancient World. Courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin–Madison, Gift of Dr. Seymour Schwartz (CA 15509 no. 5).



PLATE 28. John Speed's *A new and accurat map of the world ...* (London: George Humble, 1627) is framed with scientific images of circumnavigators of the globe, the four elements, a geocentric universe and an armillary sphere, and solar and lunar eclipses. Courtesy of The American Geographical Society Library (050 B-1626).

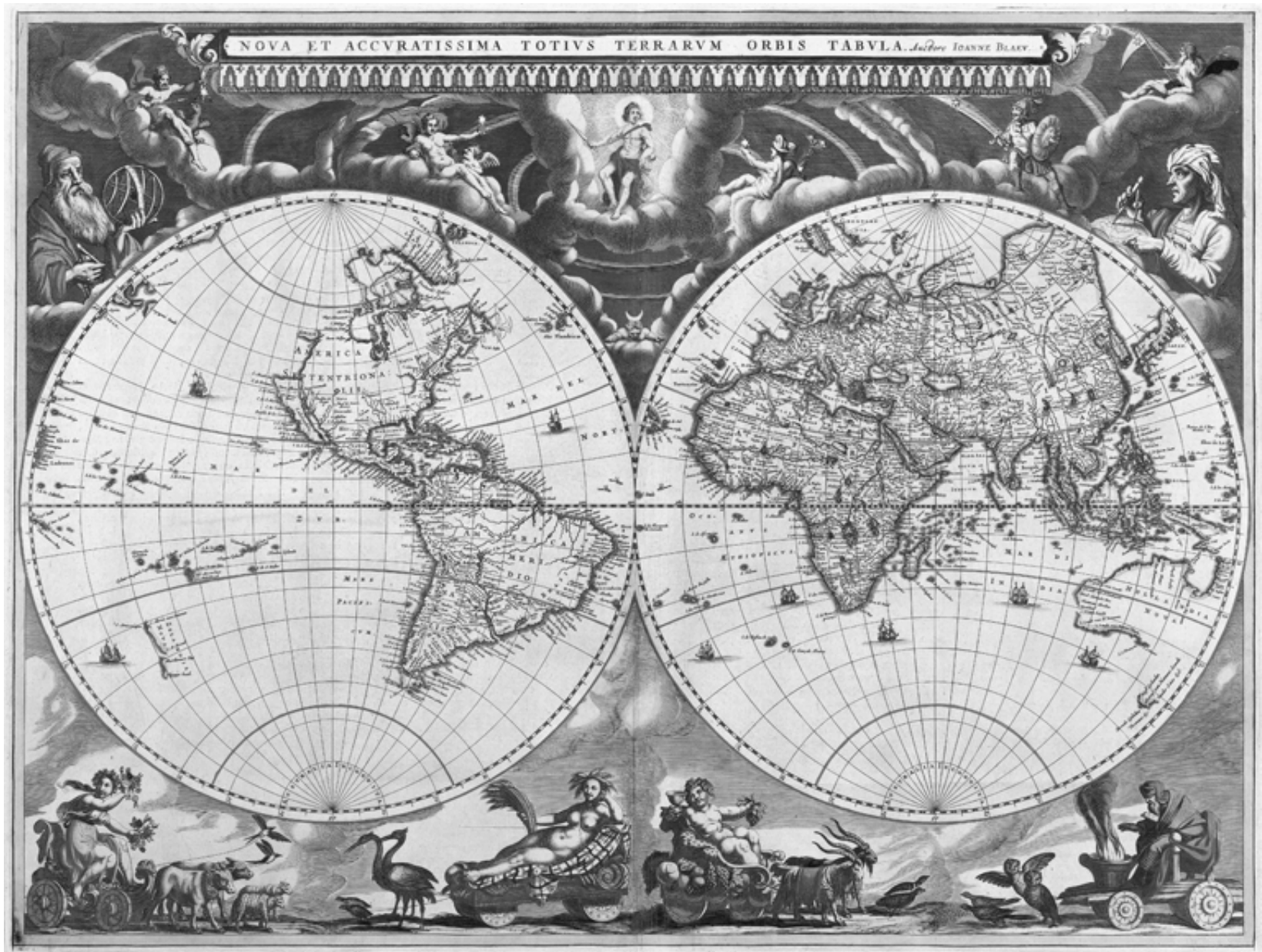


PLATE 31. Marginal decoration of Joan Blaeu's *Nova et accuratissima totius terrarum orbis tabula*, from his *Atlas Maior, Sive Cosmographia* (Amsterdam: Joan Blaeu, 1662), makes the map a celebration of the Copernican heliocentric universe and links space (the map) with time (the four seasons). Courtesy of the Osher Map Library at the University of Southern Maine (050 A-[1716]).

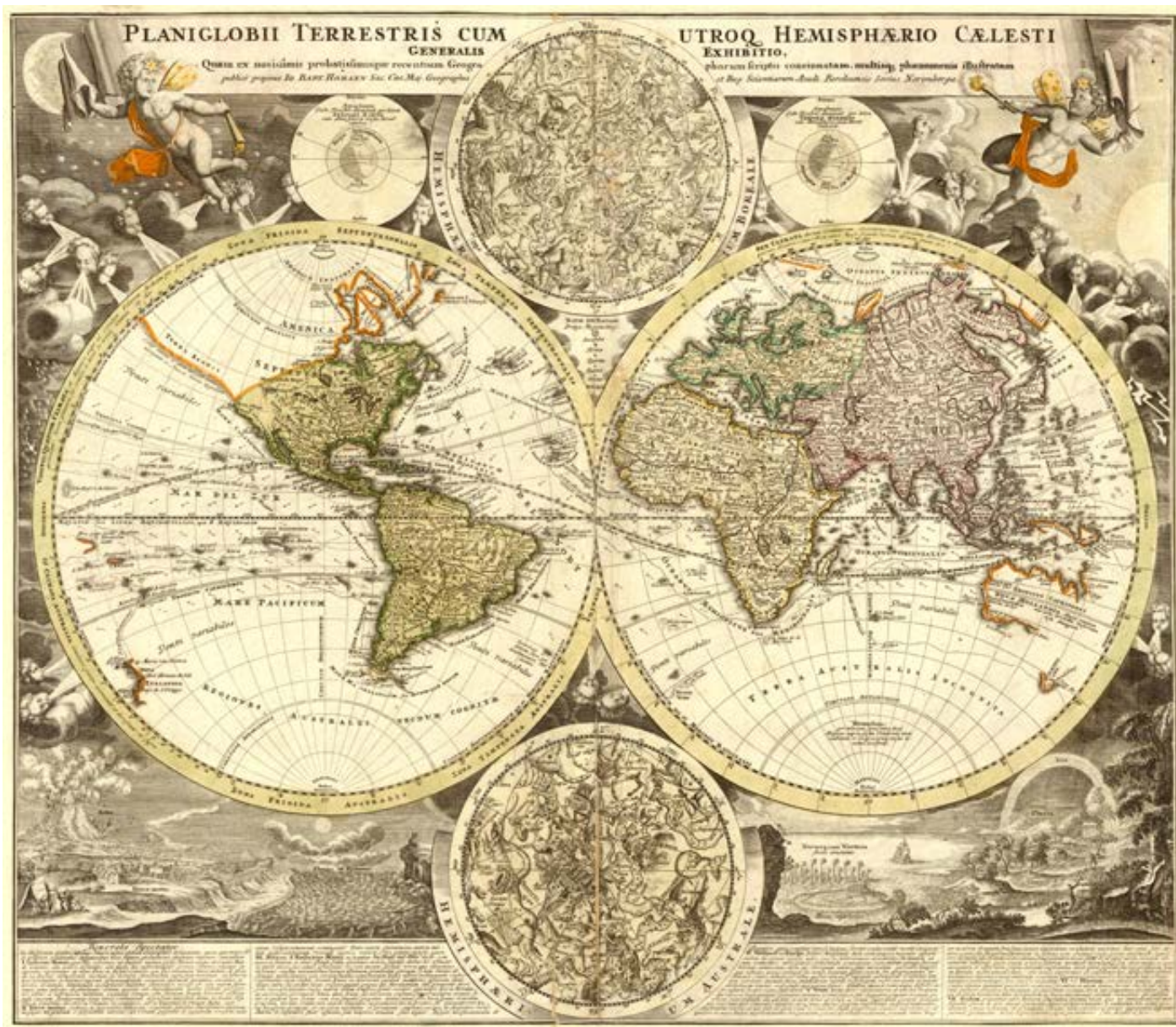


PLATE 32. The earth's physical and atmospheric forces are illustrated in the margins of Johann Baptist Homann's *Planiglobii terrestris cum utroque hemisphaerio caelesti generalis repraesentatio* ... (Nuremberg?, ca. 1716). Courtesy of The American Geographical Society Library (050 A-[1716]).



PLATE 33. European observatories are represented at the corners of the star charts in Reiner Ottens's *Atlas Maior cum Generales Omnium Totius Orbis Regnorum ...* (Amsterdam: n.p., ca. 1740). Wisconsin Historical Society Library-Archives ([CAGE] GZ 1740 O).



PLATE 34. *Americae sive novi orbis, nova descriptio*, from Abraham Ortelius's *Theatrum Orbis Terrarum* (Antwerp: Christoffel Plantijn, 1587; 1st ed. Coppenium Diesth, 1570). The title cartouches were copied from the pattern books of Italian Renaissance sculptors. Courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin–Madison, Gift of Dr. Seymour Schwartz (CA 15509 no. 2).



PLATE 35. The *Partie occidentale du Canada ou de la Nouvelle France* ... by Vincenzo Maria Coronelli (Paris: Jean Baptiste Nolin, 1688) shows a hunting scene carried out by American Indians and Europeans in the title cartouche. Wisconsin Historical Society Library-Archives (Parker 1012).

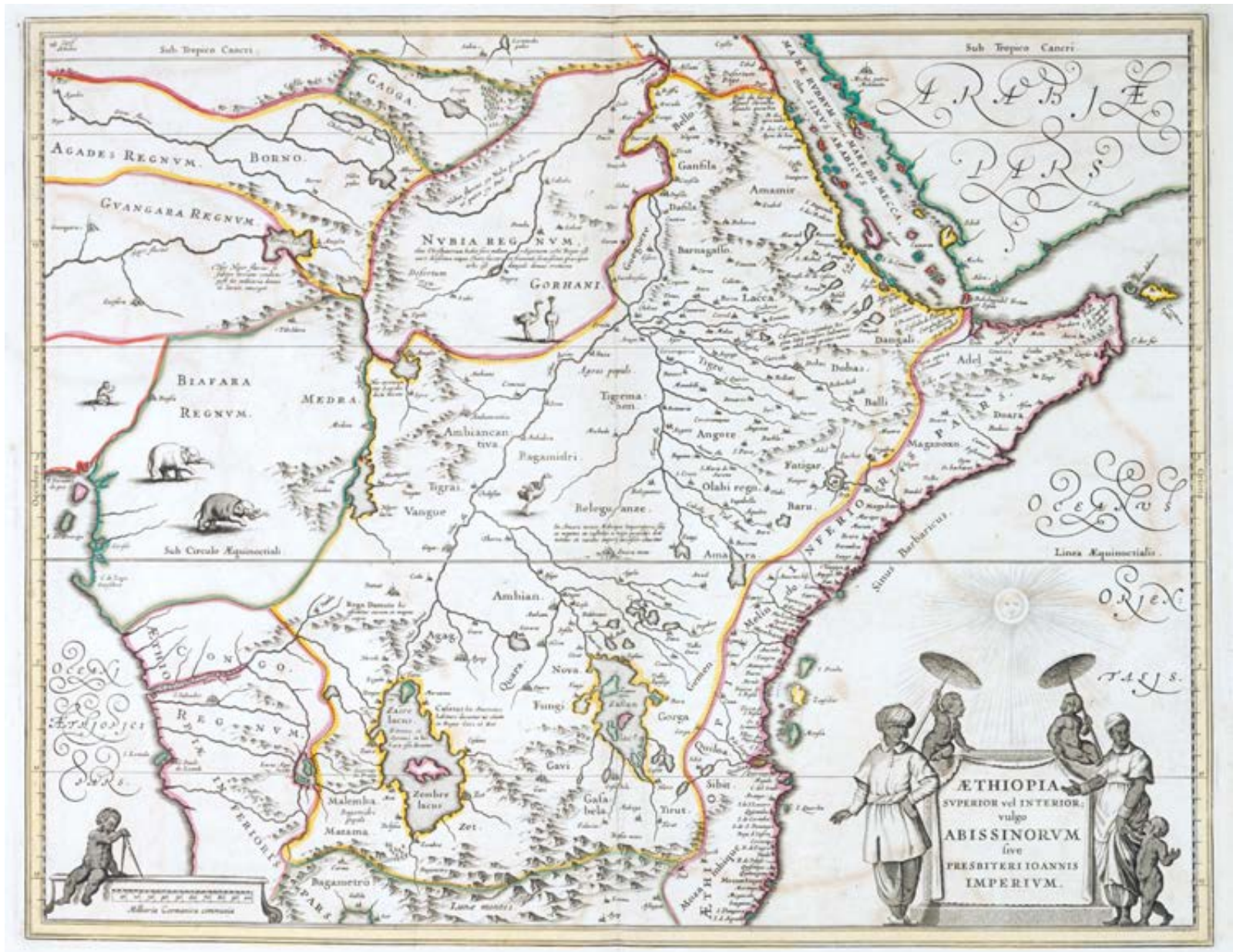


PLATE 36. *Aethiopia Superior vel Interior vulgo Abissinorum sive Presbiteri Joannis Imperium* by Willem Janszoon Blaeu (Amsterdam: n.p., 1696; 1st ed. 1635) shows cartouches with black African inhabitants corresponding to the region mapped. Wisconsin Historical Society Library-Archives (T GZ 1696 A).

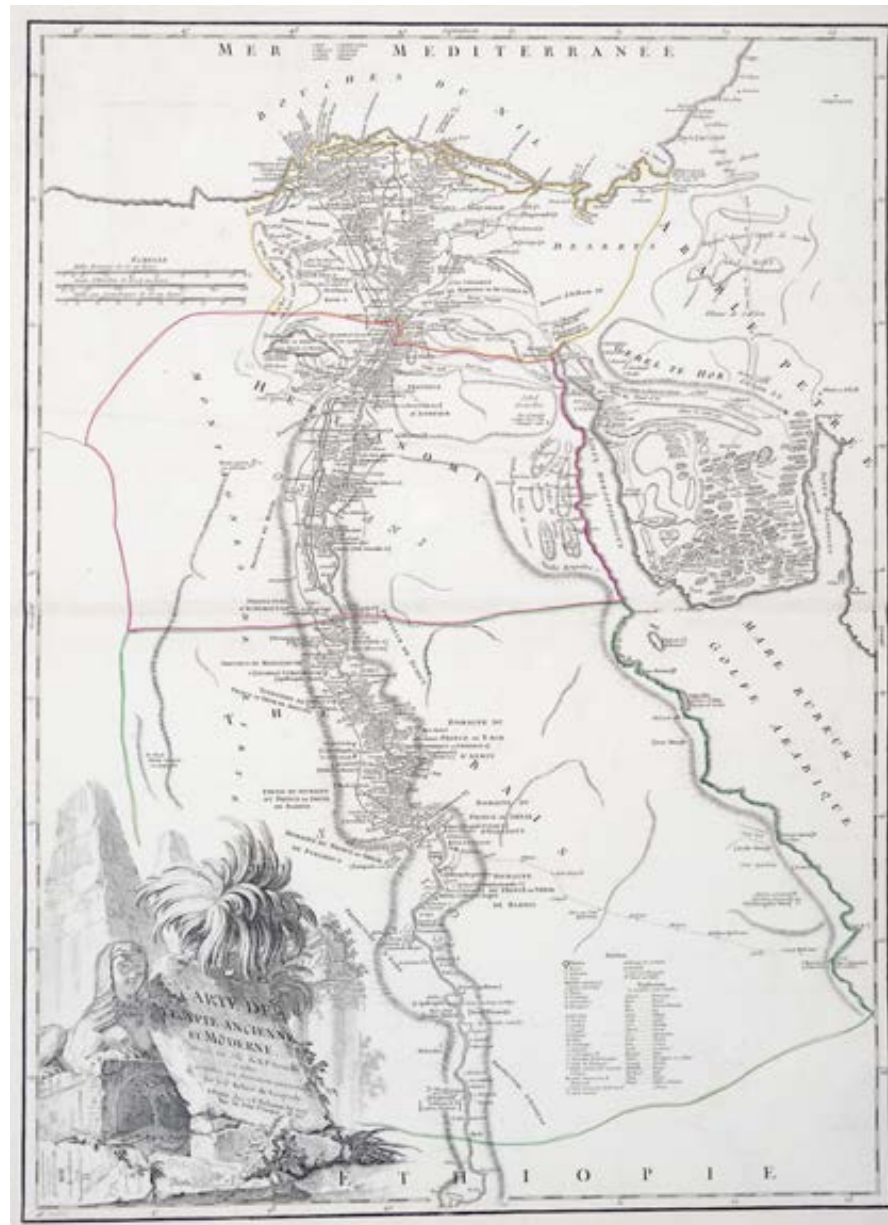


PLATE 37. The *Carte de l'Egypte Ancienne et Moderne* by Gilles Robert de Vaugondy (Paris: Gilles and Didier Robert de Vaugondy, and Antoine Boudet, ca. 1798; 1st ed. 1757) evokes in the title cartouche the ruins of Pharaonic Egypt. Wisconsin Historical Society Library-Archives (Cage E GZ 1798 R).



PLATE 38. *Theatre de la Guerre en Espagne et en Portugal*, from *Nieuwe atlas ...* by Johannes Covens and Cornelis Mortier (Amsterdam: Covens & Mortier, ca. 1740) maps part of the Iberian Peninsula. The War of the Spanish Succession (1701–1714) illustrates the cartouche. The Archduke Charles (a young Charles III) appears on a horse, although the title of the map on a big rock dedicates this work to Philip V. To save money this map was reissued with minor differences from a map, by Pierre Mortier and dedicated to Charles III, of around 1710, and neither the face of the sovereign nor the Habsburg symbols were changed, although when it was published Philip V of the Bourbon dynasty reigned in Spain. Wisconsin Historical Society Library-Archives (R T GZ 1739 C v.1).



PLATE 39. The title cartouche in *The United States of North America: with the British and Spanish Territories, According to the Treaty, of 1784* by William Faden (London: William Faden, 1785) is a clear example of the celebration of British colonization and dominion in North America. Wisconsin Historical Society Library-Archives (Rare Book Collection R GZ 1790 A).

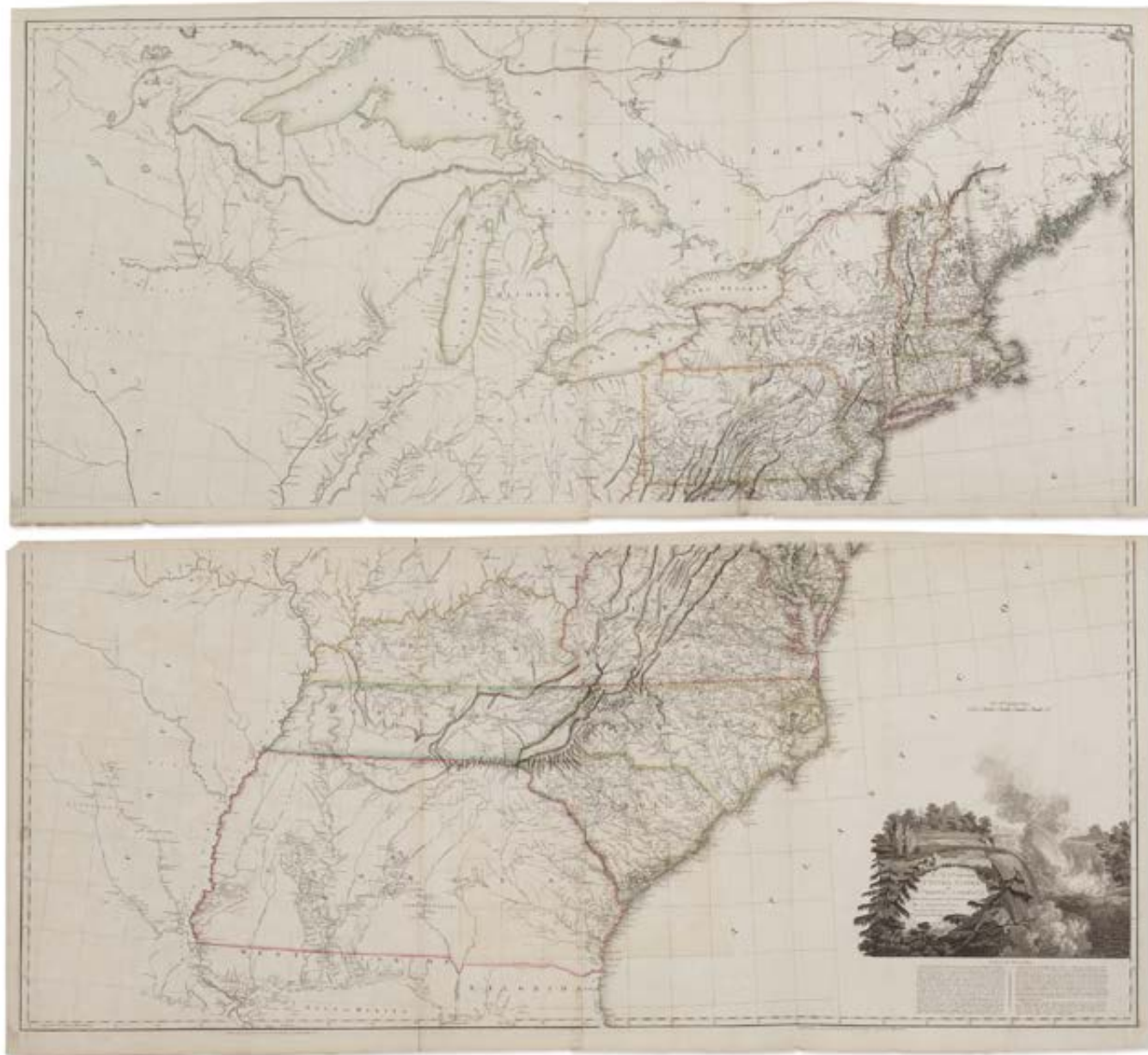
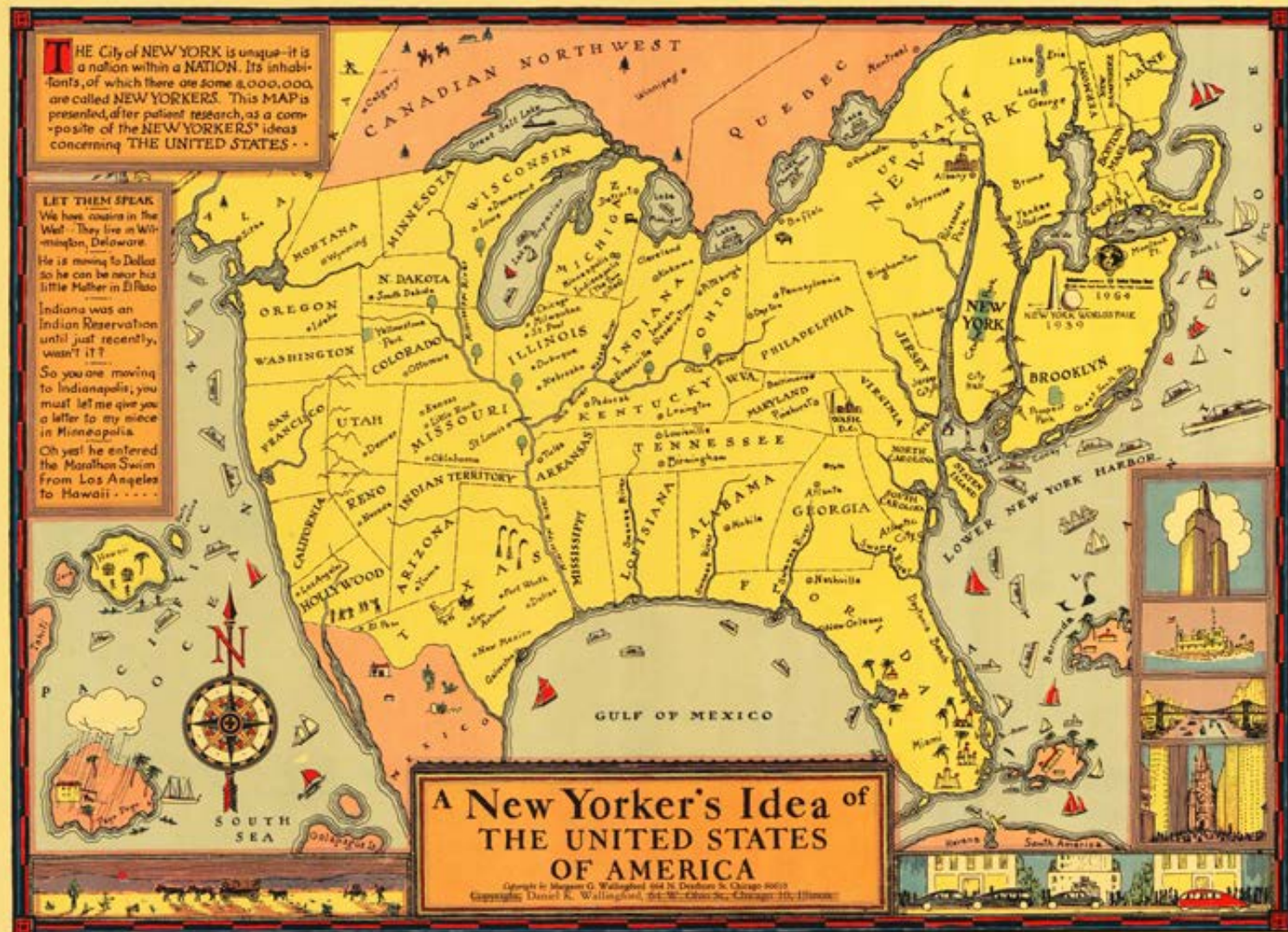


PLATE 40. *A map of the United States of North America; drawn from a number of critical researches by Aaron Arrowsmith (London: Published as the Act directs by A. Arrowsmith, Plate 10 Soho Square, 1802) evokes the American paradise before Columbus's arrival through the title cartouche of Niagara Falls. Courtesy of the Department of Special Collections, Memorial Library, University of Wisconsin–Madison, Gift of Dr. Seymour Schwartz (CA 15509 plate 16-19).*



PLATE 41. Senator Coleman du Pont's project of road construction in the United States appears in *National industrial and military highways* issued by National Highways Association, the Automobile Club of America, and the Society of American Military Engineers by John C. Mulford (Washington, D.C.: National Highways Association, 1928). Image courtesy of The American Geographical Society Library (800-b D-Nat'l Hwy Assn 1928).



This famous humorous map (with its companion piece the Bostonians Idea of the United States) has become a legend. Although created in the 1930's by Col. Wallingford who was an architect and industrial designer and veteran of both World Wars, the map is still being published in many celebrated current books and magazines. It was a souvenir of the New York World's Fair of 1939 and is now brought forth by popular demand bearing the United States Steel Symbol of the New York World's Fair of 1964.

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PLATE 43. *A New Yorker's Idea of the United States of America* by Daniel K. Wallingford (Boston: Daniel K. Wallingford [reprint from ca. 1964]) is a humorous and satiric map of the United States as seen by a chauvinistic New Yorker. Courtesy of the Arthur H. Robinson Map Library (G3701 A6 193- W3).

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